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THE FARMER AND PLANTER



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COLUMBIA DIRECTORY.

We are under obligations to Mr. J. T. HERSHMAN, for a copy of this valuable work. We have carefully examined it, and feel no hesitancy in recommending it as a correct and perfect Directory of this city. It is gotten up in a neat and convenient form, and its typography is deserving of great praise. We hope the citizens of Columbia will liberally reward Mr. HERSHMAN for his industry and zeal. It should be in every business house in the city. It is also of great value to our friends in the country, affording them reliable information as to the place of business and dwelling of every family in Columbia, together with the names of officers of the United States Government, with the salary of each: officers of the State of South Carolina, military and civil: officers of the city of Columbia: officers of the various institutions of learning: Banks, Military Companies, Churches, Sabbath Schools, Fire Companies, Lunatic Asylum, Railroads, Secret and Benevolent Societies, located in this city, and many other matters equally interesting and valuable to the citizens of the State at large. The Directory can be purchased at the Bookstores, or of Mr. HERSHMAN. Price \$1.00.

TO THOSE IN ARREARS.

In the January number of the *Farmer and Planter*, we enclosed a bill to each subscriber in arrears, according to the accounts transferred to us by the former Proprietor. Our object in sending the bills was two-fold—to collect the debts justly due, and correct, as early as possible, all errors that may appear upon the books: but, in so doing, we had no idea that we should be blamed, and accused of attempting to extort second payments from the subscribers. We made out the bills exactly as the accounts were transferred to us. We had nothing to do with the books previous to January last: consequently, could not have known anything about their correctness, and, therefore, cannot see the justice of the many insulting and ungentlemanly letters we have received in answer to the bills sent. All we ask from each one, is, if the account is not correct, to apprise us of the fact, with such information as will be at all satisfactory, that the same, or any part thereof, has been paid. The former Proprietor is an honest, upright man, and we have no hesitancy in saying that he is not capable of doing a dishonest act—more especially in such a paltry way: and, whenever errors are discovered, he will cheerfully rectify them if apprised of it. As for our agency in the errors, we can only say, as before, we had nothing to do with it, except copying the accounts from the book, and sending the bills. In fact, it is equally our pecuniary interest to have those errors corrected, as well as to collect the accounts, because such corrections will reduce the price of our purchase the amount of the error. Some men sullenly refuse to notice our bills. To such we would say, you are not dealing fairly with us. If you will not aid us to set the matter right, we, and *not you*, will have to pay again what you assert has been once paid by you. Heaven knows, from present indications, our losses from delinquent subscribers will be a heavy load enough to carry, without the addition of unjust insinuations and abuse. We say, then, if there are errors, let us correct them: if not, it is but just for us call for the money, and just that we should receive it.



VOL. X.

APRIL, 1859.

NO. 4.

R. M. STOKES, }
PROPRIETOR. }

COLUMBIA, S. C.

{ NEW SERIES
VOL. I, No. 4.

AN ESSAY
ON

Diseases of Domestic Animals, and their Treatment,
To which was awarded the Premium of Twenty
Dollars by the State Agricultural Society of
South Carolina, at Columbia, October, 1858.

BY J. J. BROYLES, M. D., WILLIAMSTON, S. C.

DISEASES OF THE HORSE.

(Continued from March No.)

Farcy.

An eruption of farcy-buds, which are the glands under the skin, inflamed and enlarged, first make their appearance about the head and neck, gradually spreading over the body. Soon they ulcerate, and discharge a fetid pus. The nose now ulcerates, as in Glanders, and the disease runs on to a fatal termination, through a series of symptoms similar to Glanders, if not timely checked.

Causes.—Anything that debilitates the system, as poverty, confinement in a close, foul stable; any debilitating diseases, &c., acting on a constitution previously tainted.

Treatment.—In the first stage of either of the above diseases, open the bowels with aloes, and commence the tonic treatment recommended in Serofula. As fast as matter forms in the farcy-buds, they should be opened, and washed daily with a solution of blue-stone $\frac{1}{3}$, water 1 pt., or burned with a hot iron. Where the system is debilitated the diet should be nutritious.

This treatment applies to Farcy, and might be tried in Glanders; but, as it offers so little hope of success in the latter disease, which is so actively contagious, it would be the safest plan to destroy

the horse at once, or at least to remove him out of the reach of others.

The stables and trough in which he has eaten should be well washed, and saturated with chloride of lime, before being used again.

Big-Head

Is the common name of an enlargement of the bone of the nose in a line between the eye and nostril, either on one or both sides.

Causes.—Cutting teeth, or an injury, where the scrofulous taint exists.

Treatment.—The constitutional treatment for Serofula. Rubbing the tumor well once per day, with turpentine, spirits of hartshorn and camphor, equal parts, or any stimulating liniment, well rubbed in daily with a hot iron, will often cure, but some enlargement is apt to remain permanently.

If this is not successful, split the skin over the tumor, and insert 4 grs. arsenic, taking a stitch to secure it. Or with a hot, sharp iron destroy the diseased parts. After which, use some stimulating wash, as blue-stone $\frac{1}{3}$, to 1 pt. water; or nitrate of silver 1 gr., to 1 oz. of water; or, vinegar and water, applied every day or two.

Big-jaw is of the same nature, and requires a similar treatment.

Fistula and Poll-Evil.

Fistula is a tumor on the neck, just in front of the withers; and *Poll-Evil*, a similar one near where the head and neck join.

Causes.—Though bruises often cause them, they are frequently of a scrofulous nature.

Treatment.—The treatment recommended for Serofula should be pursued, where this taint is suspected.

If taken early, the turpentine, spirits ammonia and camphor, well rubbed in with a hot iron, every day or two, or blisters frequently repeated, will often discuss it. But if insufficient, and matter forms, the tumor should be opened, and a seaton inserted in such way that it may pass out at the bottom, for the easy exit of the pus. If the diseased portion be extensive, destroy it with arsenic, burnt blue-stone, or a red hot-iron, rather than let it slowly run out in the form of matter. After this, if it be slow to heal, apply the wash of blue-stone $\frac{2}{3}$ to 1 pt. water, or nitrate of silver 2 grs. to the oz. every two or three days, still keeping the tumor open from the bottom while there is any running, and sustain the strength by good feeding, if the patient be debilitated; or a spare diet, if there be fever, or the horse high in order.

Scrofulous Ophthalmia—(Moon Blindness.)

Ophthalmia may be either simple or scrofulous.—If of the latter kind, the redness will be more deeply seated, giving the eye a dusky red appearance; there will be a thickening of the lids, and it is apt to reeur, with more or less regularity, which has given it the name of "Moon blindness." If the inflammation of the eye be not checked, the organ soon becomes of a milky whiteness, and the sight may be lost.

Treatment.—Whatever be the nature of the disease, we should first bleed, if the patient be plethoric, or fever present, and the bowels should next be opened with salts. The fever in the eye should be kept down by frequent and long continued applications of cold water. The eye-lid, turned over the finger, should be slit across on the internal side, and the angular vein, at the inner corner of the eye, opened, that the blood may be taken immediately from the inflamed vessels. After bleeding and purging, an eye-wash of sugar of lead 4 grains, acetate of morphia 2 grs., to the ounce of water; or sulphate of zinc 1 gr., sulphate of morphia 2 grs., to the ounce, should be dropped into the eye several times per day. The patient should be kept at rest, on moderate allowance of food, without corn.

If the disease be of a scrofulous nature, besides the above treatment, that recommended in Scrofula should be made use of. A blister in the hollow above the eye, or a seaton in the jaw, should be made use of in cases of long standing. The eye must be protected from the blistering-salve when this is used.

Mange

Is a most contagious disease, making its appearance by vesicles, which bursting, leave a sealy sur-

face, which spreads in extent, causing great irritation and itching. When of a scrofulous nature, it extends down as deep as the glands of the skin, and removes the hair in its course.

Causes.—Filthiness of stables, cold, exposure, hereditary taint, &c.

Treatment.—After washing the parts with soap and water, apply an ointment of tar 1 pt., sulphur $\frac{1}{2}$ lb.; or, blue-stone $\frac{1}{3}$, water 1 pt., applied in like manner. Sulphur $\frac{1}{3}$, tartar emetic $\frac{2}{3}$, should be given once per day, and, if the disease is scrofulous, the remedies there recommended should be recurring to.

Surfeit

Makes its appearance by lumps of various size on the skin, either of the head and neck, or over the entire body, and is caused by derangement of the stomach, from improper food, &c.

Treatment.—A bleeding, followed by a dose of salts, and the daily use of tartar emetic $\frac{2}{3}$, sulphur $\frac{1}{3}$, will usually effect a cure. If, however, the disease be obstinate, and the lumps large and deeply seated, we may suspect its scrofulous origin, and treat accordingly. But, in this case, it is apt to degenerate into Mange or Farcy.

Chronic Cough

Frequently has its origin in Scrofula; but, unless some of the other indications of that disease be present, we could not ascertain its nature. The treatment would be that for Scrofula in general.

DISEASES OF THE NERVOUS SYSTEM.

These are few, and but little understood. Owing to the absence of heat, redness, swelling, or any of those sensible symptoms by which we are enabled to judge of other diseases, we are at a loss to prescribe for those of the nervous system. Fortunately, however, they are few.

Epilepsy.

The animal begins to tremble, and suddenly falls, and is violently convulsed in various ways. After the fit passes off, the horse rises, shakes himself, and is again fit for use.

Treatment.—It is incurable, unless the cause which produces it could be ascertained and removed, which is rarely the ease, as it is usually located in the brain.

Tetanus—(Lock-Jaw)

Is a peculiar irritation of the nervous system, causing rigid spasms of all the voluntary muscles, usually caused by an injury done to a nerve, as a nail in the foot, &c.

Treatment.—Bleed, almost to fainting, and then

administer large doses of opium, from 1 to 2*ʒ*, if the mouth can be opened; otherwise, inject three times the quantity, repeating every four hours, until several doses are given.

Stringhalt

Is a spasmodic twitching of some of the muscles of the hind leg, causing it to jerk quickly up.—Some say it is an overflow of nervous energy, and think it a mark of activity; but we think it more reasonable to suppose it to be a peculiar disease of the nerve, which disqualifies it from regulating the amount of nervous power to be used. However this may be, it is of no consequence, as the disease is neither injurious or curable.

STABLING.

If our farmers would reflect for a moment on their erroneous mode of stabling in this country, they would not be surprised at occasionally having a sick horse to treat, but should rather wonder how their stock escaped so well. Some have their stables too close, which obliges the horse to breathe over and over again confined air, made poisonous by the emanations from the filthy accumulations of urine, &c. The horse is taken from this warm stable, with the pores of his skin open, and suddenly plunged into a chilly rain or snow, to stand in the pasture, or be worked for twelve hours. He is then brought to his stable, where he must again, for twelve hours, breathe an air confined and polluted with the ammonia from the filth and urine of his stall.

But, in this country, the converse usually obtains. After the day's labor is over, and the horse heated and wet with perspiration, we turn him into his stable, where the scarcity of boards, and the immense size of the cracks between the logs, or which his stable is built, permit the cold wind, rain, and snow, to pelt the poor animal through the night, while he lies, attempting to sleep, in cold mud and urine half way up his side. The consequence is, he is completely chilled through, and rises next morning much exhausted by his night's suffering.

When the blood is circulating freely, and all at once the horse is subjected to this sudden, severe degree of cold, the circulation is suddenly driven to internal organs, and, as the lungs are most plentifully supplied with blood-vessels, and have already been irritated by breathing those stenches of harts-horn, &c., from the stable, we are not surprised to find coughs, colds, and Pneumonia, occasionally.

But, if the horse escape disease, do not accuse him of being an unthrifty animal, if he should lose

flesh, and his coat should look a little rough; but, on the contrary, if he should be troubled with weak eyes, mange, scratches, or an occasional fit of the colic, we should not be surprised. What I wish to inculcate is, the importance of keeping the horse, as well as all other domestic animals, in as uniform a temperature as possible, especially avoiding sudden changes. The stables should be well ventilated—kept free from mud—and the cold, rainy winds of winter should be excluded.

An over-heated horse should never be stabled wet, but rubbed dry; and, if the weather is severe, a blanket should be thrown over him while he is cooling; and a fresh supply of straw occasionally thrown into his stall, will greatly add to his comfort.

If care be taken in this way, and our animals regularly fed and watered, we will keep our stock in order on one-third less feed than we make use of under the present system; and, while our stock would enjoy a comparative immunity from disease, our consciences would surely rest easier.

DISEASES OF CATTLE.

Cows of this country being less artificial than the horse, from the fact that they are obliged to make their chief living from the forest and sedge-fields, are less liable to disease than that animal. The farther we remove any animal from that state of nature in which it was originally placed, the more we increase its liability to disease; and although, by an improved treatment, we augment their usefulness, we at the same time add to the number and complexity of their diseases.

Fever,

As in the horse, is a rare disease in cattle, unmixed with some local affection. Writers, however, speak of a mild form of Fever, caused by over-driving, fattening too fast, &c. We should think fever a rare disease, truly, from the latter cause, in this country.

Symptoms.—Red nostrils, quick pulse, costiveness, high-colored and scanty urine. The disease usually passes off in a few days.

Treatment.—Open the bowels by giving salts 8 oz., and afterwards nitre 3*ʒ*, tartar cinetic 1*ʒ*, thrice per day until the fever subsides.

Malignant Fever

Is caused by over-fatigue, over-heating, &c., but is often epidemic.

Symptoms.—It usually begins with quick, hard pulse, red nostrils and eyes, hard breathing, scanty urine, and costiveness. But this state of things,

which has caused most writers on the subject to class this as Inflammatory Fever, disappears in two or three days, and we have the evidences of the low, malignant nature of the disease, manifested by swellings on the external part of the abdomen; joints, or any portion of the body may become the seat of the critical deposit, which usually takes place about the third day—the animal evincing symptoms of great prostration at this time.

Treatment.—At the beginning of the disease, while there are yet no indication of weakness, and the pulse firm, bleed liberally and open the bowels, by giving salts; and then commence with the fever-powders spoken of for the horse—nitre 3ʒ, tartar emetic 1ʒ, twice per day. When weakness supervenes, substitute spts. nitric ether 1ʒ, given in 1 pt. of boneset or camomile tea, twice per day, in place of the fever-powders. Use soap-suds injections to open the bowels, if the salts are insufficient, and bathe the local swellings repeatedly in warm brandy or vinegar and water.

Catarrhal Fever—(Distemper—Influenza)

Makes its appearance by the same symptoms, requires the same treatment, and should be distinguished from Pneumonia with the same care, and by the same symptoms, as in the horse.

Murrain—(Malignant Epidemic—Pest).

This disease has carried off more cattle, perhaps, than any other; and, consequently, has elicited some of the ablest articles upon the subject. That of Layard, in my estimation, is as concise as any other. His description of the symptoms are as follows:

"The disease commences with itching of the ears, sore throat, cough, a watering of the eyes, a fetid discharge from the nose. Great prostration of strength, boils appear upon the skin, and the discharges from the bowels are of the most offensive character."

An epidemic similar to the above has raged throughout the United States during the past year. In this, besides the symptoms described above, there was soreness of the tongue, which became livid, giving this disease the name of Sore-Tongue, Black-Tongue, &c. The udders, anus, and other parts were inflamed and excoriated, the disease showing every mark of putrescence. As the appearance of rust on oats, grass, and, in fact, almost every other vegetable growth, made its appearance this year, simultaneously with the epidemic, it has been supposed, by some, that the disease owed its origin to the same atmospheric conditions. Others, however, as reasonably suppose the rust itself, being

eaten with the food, produces the epidemic. And this conclusion is borne out by analogy.

The effects of the ergot of rye, when fed to animals, is well known. This is a diseased growth of a fungus nature, found on rye and other small grain, in many parts of Europe, and occasionally is seen in the United States. It is said to be produced by certain peculiarities of the atmosphere, continued moisture being one of the necessary requisites. In obstetrics, its power in expelling the contents of the womb is well known; it is also equally well known that, when fed to animals regularly, it invariably produces a low state of putrid fever, attended with gangrene and mortification of different parts of the body. It is, therefore, as reasonable to suppose that the fungus growth of rust might have produced the disease in question. In Florida, where we learn that all vegetation, even the oak leaves, were covered with rust, the disease has been peculiarly rife, extending to deer and other animals.

Another corroborative proof of rust being the cause of this disease, is, that where cattle were kept up they usually escaped its ravages. It is, however, probable that both the atmospheric condition and the rust eaten, alike acted their part in producing the disease. It is, however, of little use to us to decide which of the two may be the cause, as they are both beyond our control.

Treatment.—Bleeding, unless practiced at the very commencement of the attack, and where there are no symptoms of prostration, should not be ventured. The bowels, however, should be cleared of the fetid secretions, which irritate by their presence, and cause continued purging. Salts 8 oz., and repeated every four hours until they operate, are the proper means of effecting this. After purging, Blaine recommends "malt mashes thrice per day, or ½ pt. yeast and 1 pt. ale, given as often. Or, sweet spirits nitre 1 oz., yeast 4 oz., spirits minderius, simple oxymel of each, 4 oz. thrice per day."

In the present epidemic, ½ oz. turpentine, with as much sulphur, given in gruel twice per day, succeeded well after the salts had operated. The local affection of the nose, mouth, udders, and elsewhere, should be bathed twice per day, with infusion of Peruvian bark; oak bark would doubtless answer; or, warm brandy or vinegar and water, should be applied to the diseased parts, and, in fact, to the entire surface. Where extreme weakness comes on, the sweet spts. nitre, with 1 pt. of ale, should be given, to support the strength. The biles should be opened when matter forms, and washed daily

with a weak solution of blue-stone, or vinegar and water.

A seaton in the dewlap is advantageous, and a nutritious diet should be allowed. When purging continues long, $\frac{1}{2}$ oz. of laudanum should be added to the other medicines, and given twice per day.—Where the epidemic is raging, the unaffected cattle should have daily access to salt, sulphur, and tar water, and be carefully separated from those affected.

This disease is so actively contagious, that the strictest care is necessary to prevent its spreading. It is even recommended to bury those which die of the disease with their skins on, and sprinkle over them quick lime. The apartments where the sick have been kept should be managed as directed for the stables of glanderous horses.

Pneumonia—Inflammation of the Brain, &c.,

Are known by the same symptoms, and require the same treatment as those diseases in the horse.

Hoove, or Blown—Inflammation of the Stomach, &c.

Hoove, or Blown, is a name given by authors to a disease caused by over-distention of the stomach, and the consequent "loss of the feed," so called.—Soon we have all the symptoms of inflammation of that organ added, as a hard, small, quick pulse, red nostrils and eyes, costiveness, high-colored urine, thirst, a tense, swollen abdomen, &c.

Causes.—"Hard, dry twigs," which half-starved cattle may eat in the Spring of the year, till the hardness of the mass prevents rumination. Sugar-corn, after being ground or chewed by hogs, will have the same effect; and, in fact, any of the grasses, eaten in too great quantities, may so distend the stomach as to prevent rumination. The hardness and dryness of the sugar-corn, when expressed, causes, when taken in too great quantities, the most violent attacks of inflammation of the stomach, which renders the animal almost furious with pain. An itching of the jaw and side of the head and neck are usually present in those cases, which causes the animal to rub and excoriate the parts, which fact has given to this the name "Mad Itch," and won for the sugar-corn an unjust censure, as its cause. This article, however, has no such deleterious effect, except from the dryness of the mass after the juice has been expressed. On the contrary, we consider it one of the most nutritious and healthy articles of food, when properly used.

Treatment.—The indications are—1st, to stimulate the stomach to action, and, 2d, to unload it. To accomplish the first, give 1 pt. ale, or 1 oz. table salt, or 1 pt. strong pepper tea. In the next place

give 1 lb salts, which might be given with the pepper tea. Inject often with large quantities of soap-suds. As soon as symptoms of fever appear, omit the stimulants, bleed, still inject, and give the nitre and tartar emetic twice per day. If the animal still continue to swell, and grow worse, plunge a small-bladed knife into the paunch, midway between the hip bone and rib, on the left side. This will let the gas escape, and give temporary relief, but the other treatment should be continued. A stomach-pump, of course, would relieve at once, but one could not often be obtained in the country.

Colic, Diarrhoea, Dysentery.

See those diseases in the horse.

Nephritis (Inflammation of the Kidneys).

To the other symptoms, as described in the horse, we have added that of bloody urine, which soon becomes black in bad cases.

Treatment.—The same as for the horse.

Hollow Horn.

The most suitable name would be hollow stomach, as it is believed that starvation, and Winter exposure, are the causes of this disease. It is known by the animal appearing dull and stupid, with coolness of the horn, or horns.

Treatment.—Bore a hole in the under part of the horn, two or three inches from the head, that the fluids may escape. Inject into it some brandy, or vinegar and water, or tar water, but more especially feed and stable.

Vermin.

To destroy these tormentors, anoint the animal with equal parts of tar and train oil, to which should be added a little sulphur. A half-pint of snuff added to a pint of the ointment is usually effectual. A decoction of tobacco will kill vermin, but it will sicken, and might even kill the animal, if too profusely used.

There are many other diseases of cattle that might be mentioned; but, as most of them have been treated of when speaking of diseases of the horse, and as there is an exact similarity, both in symptoms and treatment, proper in each, we refrain from making the repetition.

The prevention of disease, and the economical improvement of cattle, and, in fact, all other domestic animals, by a judicious course of management, would furnish quite as large a field for useful research and reasoning, as the treatment of their diseases, but as that would be beyond the scope of this essay, an attempt would be superfluous.

DISEASES OF SHEEP

Are quite as numerous, and not better understood, than those of cattle. Many of them, however, present the same symptoms, and require the same treatment—the doses of medicine being about one-third as large as the medium dose for a cow.

Putrid Fever.

The symptoms and treatment, as detailed for cattle, are precisely similar here. Different names are given, however, as the critical deposit which takes place in this disease is manifested in different parts: *Red Water*, when the chest is affected, and a bloody water exudes from the nose; *Sheep Pock*, when the skin is affected with biles, &c. The most apparent symptoms of fever in sheep are, panting, redness of the nose, mouth, eyes, &c., a stupid appearance of the animal, with a watery discharge from the eyes and nose.

Scrofula

Is a disease which we believe to exist in sheep, as has been described in the horse; manifesting itself in different forms, and receiving different names accordingly. A predisposition to this, and even the disease itself, in some of its different forms, is caused by starvation and exposure; too long continuance in the same pasture, especially a low and damp one, or any cause that has a tendency to lower the condition and impair the general health, if continued long, will produce some of the forms of this constitutional disease.

Experiments on rabbits have proven, that long confinement in a damp, dark cellar, without a change of food, will produce in them a disease similar to Scrofula in man, and so it is with sheep.

Symptoms.—The disease is known by a general decline of health, the sheep loses flesh, appears stupid, the eyes look glassy, a fetid breath and discharge from the nose, the bowels either too loose or too costive, and the urine high colored.

Scrofula is a disease of the lymphatic and glandular system, and hence we find, in this form of the disease, that important gland, the liver, diseased, and, in bad cases, completely disorganized.

The kidneys are also affected. This form of the disease has received the appellation of *Hydropic Rot*. In a different form of the disease, where the lymphatics and glands of the intestines are affected (see lymphatics of the horse), we have general wasting of flesh, the fleece loses, and even the horns and hoofs drop off, and sores and glandular enlargements may appear on different parts of the body, under the throat, &c. This, by some, is called *Pelt Rot*, *Hunger Rot*, *Naked Disease*.

Sheep which have been subjected to the above causes, and have the predisposition to Scrofula created thereby, are apt to have the disease excited by a bad cold (*Catarrh*), Pneumonia, &c. After an attack of the latter disease, a troublesome cough will remain, which will be found to be produced by ulceration of the lungs, windpipe and nose, with a fetid discharge from the latter, and then we have a disease similar to Glanders in the horse. This is called *Glanderous Rot*.

Treatment.—When the sheep first begins to lose flesh, and shows other signs of incipient disease, a change of pasturage, especially to a better one, a change of food, to that of a more nutritious quality, and comprising, also, greater varieties, regular salting, with proper sheltering, if in cold weather, will likely put a stop to the disease. Where the disease is farther advanced, give blue-stone 10 grs., or copperas 10 grs., or iodine 1 gr., or a gill of a strong infusion of cedar-berries, twice per day. A gill of strong decoction of oak bark, with 30 drops muriatic acid, twice per day, is also recommended.—Whichever one of these medicines are chosen, should be given regularly for a week or two, and even longer, if necessary. Where the animal is feeble, some of the stimulants recommended for Murrain in cattle should be given, instead of the above. The bowels should be opened at the beginning, and regulated afterwards according to circumstances. The local disease should be treated as recommended for similar diseases in cattle. (See Murrain.)

Pneumonia

May occur in sheep, as in oxen or horses, and is produced by exposure.

Symptoms.—There is a discharge from and redness of the eyes and nose, hot breath, cough, hard breathing, trembling and staggering, with a disposition to fall backwards.

Treatment.—Bleed, open the bowels with 2 oz. salts, and give nitre 13, tartar emetic 10 grs., twice per day. In sheep which have been subjected to the causes that produce Scrofula, Pneumonia is apt to leave a chronic cough, which will degenerate into *Regular Rot*, so called.

Catarrh

Is unworthy of notice, unless it leaves a cough to run on into Rot. Treat as for Scrofula when this is the case.

Staggers—Watery Head,

And many other names, have been given to a disease caused by the presence of an animal which mysteriously finds its way to the brain.

Symptoms.—“Dullness, an inclination to sit on the rump, and to incline the head to one side, generally to the side opposite that in which the Hydatid is situated. The pupil of the eye becomes round instead of oval;” and, if the Hydatid be on the surface of the brain, absorption of the skull takes place, and occasions a softness of the bone, readily felt.

Treatment.—It is said to be cured by puncturing the skull with an awl, gimlet or knife, just over the animal, and destroying it with the same instrument.

The eggs of a certain fly are occasionally deposited inside the nostril, which soon hatch, and the larva crawl up into the back part of the nose and frontal sinuses, and cause great irritation, with a discharge.

Treatment.—Skinner’s remedy is $\frac{1}{2}$ lb Scotch snuff to 2 qts. boiling water, of which, a tablespoonful is to be injected up each nostril three or four times from the middle of October to the 1st of January.

Fluke-Worm

Is found in the liver of sheep, as well as many other animals, but is not thought to be the cause of disease.

Sheep are also subject to Colic, Inflammation of the Bowels, Diarrhoea (or Scours), Dysentery, Hoove, or Blown, and many other diseases common to cattle. For their symptoms, treatment, &c., see those diseases in cattle.

DISEASES OF SWINE.

The importance of attending to the study of disease in hogs, is so much undervalued, and, consequently, so little understood, that it is considered almost ridiculous, at least absurd, for any one to attempt the treatment of a sick pig; and yet we have, or could have more experience in their diseases, and more *post mortem* examinations, than in almost any other domestic animal, from the fact of their greater relative numbers. There are a sufficient number of pigs that sicken and die yearly, on a moderate-sized farm, if properly attended to, and experimented upon, to furnish us, in a few years, with more light upon the subject than is really known at the present day. The prevention of disease in them should demand the attention of every scientific farmer, and when the hog is really sick, we should be able to do something for him. A few of his diseases, however, have received some attention, as follows:

Quinsy

Is an inflammation and swelling of the glands of the throat, so as to impede, or even prevent breathing.

Treatment.—Bleed from the ears, by cutting them off, in order to abstract the blood from as near the seat of the disease as possible. Give tartar emetic 1*ʒ*, sulphur 1*ʒ*, twice per day, in water or slop, if the patient will take it, but in a pill if he will not. Rub hot turpentine well under and around the throat, with a warm iron, and keep him in a warm bed. It is either epidemic or caused by cold.—When the epidemic is raging, hogs should be well sheltered, and fed in a trough smeared with tar, and have salt and sulphur given them every few days, as a preventive.

Pneumonia

Is caused by cold, and is recognized by heaving, and a red nostril and mouth.

Treatment.—The same as for Quinsy, except that the application of turpentine should extend over the entire chest; also, give nitre 1*ʒ*, tartar emetic 1*ʒ*, twice per day.

Staggers:

In this disease the hog staggers, and is unable to hold the head in one position, it being generally turned to one side.

Treatment.—Bleed by cutting the ears, in order to take the blood directly from the brain, the seat of the disease. Give the tartar emetic and nitre, as above directed; and, splitting the skin of the forehead, insert a pea, or some salt, as a counter-irritant.

Mange

Is cured in hogs, if recent, by first washing with soap and water, and applying train oil and tar, equal parts, every day or two, but exclude the pig from your straw-house or stable, where he contracted the disease. Where it is far advanced, and the skin cracked and raw, after the washing, apply a solution of blue-stone 1*ʒ*, to the pt. of water. This should be used every third day, applying the oil and tar after each application of the blue-stone. One or two washings will usually effect a cure.

Measles

Are said to exist in swine, and sulphur and beer to be the remedies.

Tumors and Wens

May appear on any part of the body. The first is to be opened when the softness of the part indicates the presence of matter, and dressed with tar and fat. The latter may be cut out if necessary.

Hogs fed on grass exclusively, especially clover, frequently scour, urinate too much, and slobber.—Salt, given every day or two, is the remedy. It should be regularly given throughout the Summer season, and will be found to greatly facilitate the

fattening process. A few ashes sprinkled occasionally upon the salt-ground will prove beneficial.

Chronic Cough,

In pigs, causes them to waste away gradually and die. If sleeping in dust be the cause, correct it. If the lungs be diseased, give the tartar emetic and sulphur daily, and feed them in a tarred trough. They should sleep warm, and a total change of food and habits are requisite.

DISEASES OF DOGS.

Dogs are subject to a variety of diseases, some of which are as follows:

Distemper.

This, like hooping-cough in the human species, is contagious, occurring but once in life. It is oftener seen in young dogs, from the fact that old ones have had it.

Symptoms.—The most common are, severe cough, and snuffling through the nose, redness of the eyes and nose, with a watery discharge from each, which soon becomes purulent, loss of appetite and flesh. Vomiting and diarrhoea usually attend, but a contrary state of bowels sometimes is observed. In the course of the disease, the brain may become affected, producing fits. The spinal marrow and the nervous system are often affected, which will produce paralysis of the hind legs, or a nervous jerking, which may remain through life. Large biles sometimes make their appearance over the body, in the advanced stage, and other symptoms of putrescence mark the course of this disease. The great variety of symptoms often renders the diagnosis obscure, but enough of those described above are usually present to lead to a correct conclusion; the most common of which are, the cough and snuffling, affections of the eyes and nose, &c.

Treatment.—If the dog be stout and vigorous, we should bleed, perhaps, but only at the very beginning of the disease. This may be done from the ear or leg. An emetic of tartar emetic 1 gr., ipecac 10 grs., should be given in all cases, and, before the weakness appears, should be repeated every day or two; and even then, if the cough be severe, they should be given. If there is severe vomiting, after the operation of the emetic, give calomel 2 grs., morphine $\frac{1}{4}$ gr., twice or thrice per day, to allay it. Warm turpentine is to be applied to the throat and chest, and well rubbed in, at intervals of a day or two. Where the bowels are running off, give opium $\frac{1}{2}$ gr., ipecac 1 gr., chalk 4 grs., twice per day, and a Dover's powder at night. Where there is costiveness, salts, or a Cook's pill, will be useful.

Where the head is affected, producing fits, bleed from the ears, and blister the forehead, or split the skin of the nose between the eyes, and insert a pea or a piece of tow. This will also relieve the snuffling when it is severe. Where there is tenderness of the loins, or paralysis of the hind legs, blister the spine; and where biles, with great prostration, make their appearance, wash them with a weak solution of blue-stone, or oak bark, and support the strength by giving gentian and iron, in appropriate doses, with a nutritious diet. The warm turpentine should be applied to the throat in all cases, and, where vomiting is severe, extending over the chest, to the abdomen. Repeated emetics, where there is fever—form the most reliable plan of treatment.

Pneumonia

Is caused by exposure to cold, and sometimes occurs in the course of Distemper or Catarrhal Fever.

Symptoms.—Quick, hard breathing, cold feet and nose, and general fever, with tumultuous beating of the heart.

Treatment.—Bleed, purge, and keep up a continual nausea with tartar emetic, not neglecting the application of turpentine to the entire chest.

Colic

Is known by pain and swelling of the abdomen.

Causes.—Cold, improper food, &c.

Treatment.—Give oil 1 $\frac{1}{2}$, laudanum 20 drops, and inject with warm water until the bowels act.

Inflammation of the Bowels

Is known by pain on pressure, general fever, manifested by thirst, red eyes and nose, loss of appetite, and either diarrhoea or costiveness. If the stomach be implicated, excessive vomiting, especially after eating, will be present. Poisons usually produce this state of stomach.

Treatment.—Where vomiting exists, give calomel 1 gr., morphine $\frac{1}{4}$ gr., every four hours. Where diarrhoea attends, treat as directed for that disease in Distemper. If the bowels be costive, give calomel 10 grs., with injections of warm water, and, in all cases, apply the warm turpentine to the abdomen.

Catarrhal Fever

Is known by redness and a watery discharge from the eyes and nose, which soon becomes purulent in the course of the disease. There is some snuffling and cough, but not so much as in Distemper proper. Great thirst and repeated vomiting usually attend, and the breathing and beating of the heart are both much accelerated. This disease is often confounded with Distemper, and hence the belief that the

latter disease may occur more than once in the same subject; but an attendance to the symptoms will enable us to distinguish the two, in most cases.

Treatment.—First, give an emetic, which may be repeated every day or two, before the symptoms of prostration come on. House the patient, if in cold weather, and give a Dover's powder at night. This, together with the application of turpentine, regulating the bowels according to circumstances, and supporting the strength by a nutritious diet, form the routine of treatment.

Ophthalmia—(*Inflammation of the Eye.*)

Treatment.—Open the bowels well with calomel or salts, restrict the diet and exercise, and, by turning the lid over the finger, searify the internal surface with a lancet, to induce bleeding. After which, drop a few drops, three daily, into the eye, of a solution of sugar of lead 2 grs., or blue-stone 1 gr., or sulphate of zinc 1 gr., to the ounce of water, to which is added laudanum 1*ʒ*. If the disease continue, blister above the eye, (carefully protecting the organ from the salve used,) or place a saucer in the cheek.

Mange.

The appearance of Mange is familiar to everyone.

Treatment.—If the dog be fat, bleed or purge; if poor, improve his food. Give a teaspoonful of sulphur daily, baked in bread. Wash the parts well with warm soap-suds, and apply train oil and tar, equal parts, once every two days, until a cure is effected, which is usually in a week, if the case is a recent one. In cases of longer standing, after the soap and water, a solution of blue-stone, 1*ʒ* to the pt. of water, or black wash, or yellow wash, should be applied every third day, keeping the patient well greased with oil and tar on the intermediate days. If ulcers form over the hip bone, shoulder, or elsewhere, keep them anointed with citrine ointment and lard, equal parts, and protect the patient from exposure.

I have cured cases with each of the above remedies, and never knew one that would not yield to some one of them, if properly used.

Every acre of land will support its man well, so long as he continues to live on vegetable food, but only let him change his diet to one meal per day of animal food, and he will require the produce of four acres to support him.

More gold is to be obtained within the plow's depth of the surface of the earth, than far below it.

A Yankee doctor has got up a remedy for hard times. It consists of ten hours' labor, well worked in.

BAREFOOTED NOTES ON SOUTHERN AGRICULTURE.

BY AN OLD GRUMBLER.

NO III.

Foreign Supplies.—*Commercial Fertility*—How far its use may be indulged in.—*Independence of the Barn-Yard.*—*Fattening Hogs, and Manure-Making.*—Value of Hog Manure.—Value of Cattle.—Sheep-raising, and its advantages to the Planter—Their beneficial effects on Pastures—Richness of their Manure.—Amount of Wool Manufactured, and Number of Sheep in the United States—Number in England.—Advantages of Wool Exporting.—The little things of Life.

We have shown that the great deficiency in the planting system results from the small number of domestic animals kept upon the plantations.—While the mules to draw the ploughs are raised in Kentucky, the pork to fill the meat-house in Ohio, the wool to clothe the slaves grown and manufactured in Yankee-land, there certainly can be no elements of improvement ready to the hand of the planter. It is easy to exhaust the fertility of the soil, but restoration is another task, and one more difficult to achieve. Fertility, which is purchased at a dear rate, by the application of commercial manures, if persisted in for a series of years, becomes a self-devouring investment, which swells the expenditure column so as to absolutely startle those who indulge in it. We are not opposed to the use of guanoes, and the various compounded phosphatic manures, but all consumers should qualify their use of these fertilizing matters by a firm resolve to constitute them the basis of such over-production of cereal and forage crops, as will enable them to liberally feed a sufficient amount of stock to furnish compost and manure enough to restore and keep in good heart their tilled fields, without further purchases from abroad. This is the true mission of guano. It is, and should always be, simply *the planter's credit*, and he should pay up and become independent, as soon as he has the means of independence in his own barn-yard.

Stocks of cattle, swine, and sheep, as far as fertility to the soil is concerned, are self-sustaining.—When we feed fifty hogs, and prepare them for slaughter, we invariably make them pay, in good manure, half the cost of fattening, which they readily do, when furnished with materials with which to incorporate their rich cereal-fed droppings. This is most easily done, and the hog-pen manure, in our hot climate, is not liable to fire the crops; and, from its decomposing slowly, it is well fitted for the production of cotton and the grasses. We find that cattle, properly fed and housed, add vastly to the fertilizing elements of the plantation, as they

See also, March No.

Sheep Pasture improved by them

rapidly consume and convert all the roughness—such as hay, shucks, straw, and dried pea-vines—into the best of compost. Sheep, which are now so much neglected in the South, might be made to perform a great change in our rural economy.—They live and thrive upon short pasturage—fed upon almost every vegetable product that springs from the earth—and, from the richness of their droppings, rapidly renovate worn-out and failing pastures. It is out of the question for planters to artificially manure the old pastures, but sheep will effect this naturally, by the even distribution of their excrements over the soil; and that, too, in a state of division by which it is preserved from the waste of exposure. It is a true saying, that "Sheep have golden feet." Rich grasses spring up in their tracks; useless weeds are eradicated by them, and the colossal ox and lordly horse, succeed them in their tenancy of the improved pastures. Where they are kept and cared for, these are incontrovertible facts. We have found the Winter keeping of sheep an easy matter—a lot of common hay, turnips, and a few bushels cotton-seed, with the browse of a pine old field, keep ours fat and thriving. Two pounds of hay, one-half pint of cotton-seed, eight pounds of roots, either of these is sufficient for a sheep per day. Their manure is richer than that of any other grazing animal. SPRENGEL said, that the manure of a thousand sheep, during twenty-four hours, was sufficient to put an acre of poor land in the best condition. Prof. JOHNSTON has verified this startling statement, in an article on the comparative value of manures—that sheep-droppings were as 12 to 7, compared with the droppings of cows, or nearly one-half more. As many sheep, therefore, as the plantation would sustain, should be kept, as they interfere with no other stock.—They would elaborate a supply of guano far better, cheaper, and more lasting, than the dust of the arid Chinchas, brought to us at such exorbitant rates. The wool and flesh would come in with saving clauses, in our domestic economy.

The United States now manufacture 40,000,000 lbs. of wool; and, to supply this, have only 15,000,000 sheep. England alone, in her small domain of dear land, has 44,000,000 sheep. There can be no reason why, with the advantages of cheap land, wide range, and a more congenial climate, we should not be able to produce at least the wool consumed by us. In doing this, we would add to the fertility of the soil, and vastly to the amount of animal food for our negroes, in the shape of fat, palatable and healthy mutton.

Are not these things worth an effort on behalf of

the planters of the South? Should it not be their pride to produce good wool enough to clothe their slaves in other and better fabrics than the miserable dog-tailed kerseys which meet us everywhere, at 25 cents a yard? Yes, to produce more—enough to fill stout ships for other lands, and thus add and open other avenues of wealth to the energy of our people. Everything which adds a single comfort to a people, is worthy of their solicitude. Life, at best, is made up of little things, which are most unobserved. Whilst great conflicts shake the rulers and agitate nations, the every-day occurrences of domestic routine "pursue the even tenor of their way"—and so may it ever be, as long as the bright lamp of energy and enterprise irradiates this scene of chequered change, upon which restless mortality is working out its destiny.

From the Valley Farmer.

THE DESTRUCTION OF FORESTS, AND ITS INFLUENCE UPON CLIMATE AND AGRICULTURE.

(Continued.)

In our last number we showed some of the evil consequences resulting to the country from the reckless and indiscriminate destruction of the American forests. The settlement of this country is yet in its infancy, and if the consequences of the removal of the native forests are now so apparent and disastrous, what will they be, at the present increasing rate of population, fifty or one hundred years hence? Besides the evils that result to us, those that will fall upon posterity will be many times greater. In thousands of instances, the timber is cut off for the purpose of accumulating property for children, which too often will be squandered in a few short years. How much better, then, would it be for the interests of those children, were these lands left in a state of nature, than in an exhausted state? Recently as this country has been settled, the effects of the removal of the forests are distinctly observable in the fall of the waters in the great chain of Western lakes. Much of the country has been cleared of the forests on both sides of lakes Erie and Ontario, and also on the south side of lakes Huron and Michigan. We should bear in mind that on account of the circulating motion of the atmosphere, the climate must be affected, even to a distance far beyond where these clearings are made. This is evidently the case from the diminution of the supply of waters from the small rivers that empty into these lakes. In regard to lakes Superior and Huron, it is true, the country to the north is still an unbroken wilderness, but the rivers of that country are small, and furnish only sufficient water to supply to the lakes the loss by evaporation. This appears the more probable, when we remember that on account of evaporation, all the great rivers of Southern Europe, Western Asia, and Northern Africa, are but just sufficient to supply the Mediterranean Sea its loss by evaporation; and the Caspian and Aral seas, from the same cause,

Destroying Forests - its bad effects.

never overflow, though fed by several large rivers. Hence, it is easy to perceive that the small rivers of the country north of lakes Superior and Huron, can do little more than supply to the great chain of American lakes the loss by evaporation. Consequently, if the quantity of water furnished by any portion of the rivers that supply these lakes be diminished, the lakes must fall below their former level. Of the extent of the fall of these lakes within any given period, we have not the figures just now at hand to state, but that there is a gradual fall, is universally admitted, and that this fall, from the constantly increasing causes that produce it, will be rapidly augmented from the great physical changes that are now going on under the stimulating influence of American enterprise, no one can doubt.

What is true in our country is still more evident in older countries. The Valley d'Aragua, in Venezuela, is situated a short distance from the sea-board, possessed of a warm climate, and of a soil fertile beyond example. It is said to combine within itself all the varieties of agriculture that belong to tropical regions; on the hills which rise in the bottom of the valley wheat is said to succeed well. The north is bounded by a chain of hills which run parallel with the sea-board, and the south by a range which separates it from Llanos. The Aragua valley is limited on the east and west by a series of lesser elevations, which shut it in completely. In consequence of this peculiar configuration of the country, the rivers which rise in its interior have no outlet to the ocean; their waters accumulate in the lowest part of the valley, and form a beautiful lake—Valentia. This lake is represented by Humboldt as being 1300 feet above the level of the sea; it is about ten leagues in length, and about two leagues and a half where it is widest.

At the time Humboldt visited this country, the inhabitants were struck with the gradual diminution which had been going on in the waters of the lake during the last thirty years. In comparing the statements of old writers with its condition at this time, it was found that the waters had very much diminished. A former writer, who visited it in the sixteenth century, says that the town of New Valentia was founded in 1555, at the distance of half a league from the lake. In 1800, at the time when Humboldt visited it, he ascertained that the lake was upwards of 549 yards, or more than 3½ miles, instead of about 1½, from its banks.

The appearance of the surface, also, gave new proof of the fact of the retrocession of the water, and certain hills which rise in the plain, still preserve the title of Islands, which undoubtedly they were, in the earlier period of the settlement of the country. These Islands, which were formed by the lowering of the water in the lake, finally became covered with cotton-trees, bananas, and sugar-canies. Buildings which had been erected on the banks, were left, year after year, further and further from them, and numerous other changes of a similar character were apparent, in proof of the great change that had taken place in the level of the lake. These facts, so certain, so unquestionable, led to numerous speculations and explanations by the wise men of the country. But the learned

Humboldt, after the most careful examination of all the circumstances, did not hesitate to ascribe the diminution of the waters of the lake Valentia to the extensive clearings which had been made in the course of half a century in the Aragua valley. "In felling the trees which covered the crowns and slopes of the mountains," says this celebrated traveler, "men, in all climates, seem to be bringing upon future generations two calamities at once—a scarcity of fuel, and a want of water."

There were, also, lakes of several leagues in extent in portions of New Grenada, which have entirely disappeared. And at the present time, fields of wheat of extraordinary luxuriance occupy levels that were completely inundated thirty years ago.—Old sportsmen of the country, who have been consulted on the subject, assert that extensive forests, which once occupied the whole surrounding country, have been cut down, and to this cause may, undoubtedly, the fall of these waters be attributed.

The most disastrous effects have been visited upon the Cape de Verde Islands, which are attributed solely to the destruction of the forests. Long seasons of drought are of actual occurrence, which of late have led to distressing famine. Throughout Southern and Central Europe, and South-Western Asia, the devastating effects of the grasping spirit of agricultural dominion are equally prominent. By all accounts, the Euphrates and Tigris are not the streams they once were. A large portion of Persia, and also Asia Minor, were once covered with forests, but for hundreds of years these have been swept away, leaving a large portion of the land a desert, and the streams are reduced to narrow channels.—Since the disappearance of the forests in the surrounding country, the Danube, once a beautiful and gigantic river, supplied by its numerous tributary sources, has become so dried up, and its dimensions so curtailed, as to now afford a shallow stream of precarious navigation. But the most devastating, desolating effects of a wanton and wholesale destruction of forest trees, can be seen in Greece, Italy, Spain, and Southern and Central France. Not only are the streams of these regions almost entirely gone, but the land has lost its fertility. Parched fields and deserts, sterile sands and bogs, that send forth deadly malaria, without groves to consume it, now prevail throughout these regions.

The destruction of the forests in the United States is now progressing at a vastly more rapid rate than ever occurred in the countries we have named, or, indeed, any country, because we have the accumulated population of all other countries, as well as our own, possessing a grasping enterprise, known to no other age or people. The millions of cords of wood that are daily consumed by steamboats, on railroads, and in the various departments of manufacture, will produce wonderful physical results in our country, as well as fearful changes of climate.

Admitting all this to be true, the question may be asked, How can the evil be remedied? We answer, by staying the wholesale wanton destruction of so much timber; preserving the groves upon the ridges, and rocky slopes, and waste places, to meet the wants of later generations; substitute coal in all places for fuel, where this can conveniently be

done; and in numerous other ways, where unnecessary waste has been allowed to take place. And upon the millions of square miles of prairie, that now only require to be proportionally interspersed with groves of timber to render this whole region the most delightful and productive portion of the globe, let native trees be planted upon the poorer ridges, and upon the north and west sides of every farm. In all this section of country, we know of no more profitable investment that farmers could make, than in occupying these portions of their farms with a judicious selection of native forest-trees, besides the health and comfort it would add to the inhabitants of the country, and the exceeding beauty it would give to the landscape.

In England, and other portions of Europe, the governments have interposed, and caused large plantations of timber to be made and protected, and similar extensive improvements have been made by private enterprise, in order, in some degree, to restore what, in early times, had been so injudiciously destroyed. There are many kinds of timber that, when once removed, can never be reproduced to answer the purposes they now serve. For instance, the pines and poplars (called white-wood by some), of such majestic proportions, which are now cut down, and employed for no very important work, can never be replaced of a quality suited to the various mechanical purposes to which they are now considered almost indispensable. Such has already become the scarcity of timber for the supply of manufacturing and building materials, as to force the enterprising lumbermen of our country into the remotest regions, beyond even the limits of civilization, into the head-waters of the numerous tributaries of the Mississippi river, and in various other sections, into the frozen regions of the North, upon this side of the Rocky Mountains, and upon the Pacific side, although the settlement of that country is but of yesterday; yet, the demand for lumber is such, that mills have already been erected upon the mountain streams, and in regions almost inaccessible. We have recently seen statistics of the lumber business on Puget Sound, which would astonish any one not familiar with the go-ahead character of our people.

The inconvenience that is already felt from a want of foresight in the economy of forests, are already severely felt in New England, and in many other portions of the older States, and the attention of farmers in many of these sections is now being turned to the subject of cultivating timber trees, to meet the various demands of the inhabitants.

We shall continue this subject in our next number, making some further suggestions by way of remedy, and in regard to the propagation of certain kinds of forest-trees in situations in which the native forests have been thoughtlessly and wastefully removed, and in those sections naturally destitute.

Grafting wax for common use may be made of two pounds of rosin, one and one-fourth of a pound of beeswax, and three-fourths of a pound of tallow. For small nursery trees or root grafting, cloth well saturated with this composition is preferable to the wax itself.

From the American Stock Journal.

FATTENING SWINE.

The chief end of swine is fatness—the great object of his life, to become pork. Hence, the best means of bringing the hog into a fit state for the pork-barrel, &c., is an object occupying the thoughts of our farming readers, and worthy of some description in our columns. We do not propose to throw much new light on the question, but to restate facts more generally known than practiced upon by pork-growers.

That pork occupies a prominent position among the products of the country, is shown both by commercial statistics and the late census—the number of swine in the United States numbering over one-fourth more than either sheep or cattle. For domestic consumption with the farmer and laboring man, it fills an important place among the provisions secured. It is the great stand-by, to be depended upon when other meats fail—and, keeping long and well, and possessing the material for cooking itself, as well as a portion of the vegetable accompaniments, it will ever retain its place where economy is studied, and hearty, strength-sustaining food is desired.

In the country and small villages, many families keep one or more pigs, for the purpose of consuming the slops of the kitchen, the refuse fruit and vegetables from the orchard and garden, and to furnish, after some weeks of high feeding in the Fall, a supply of meat for family use. This is true economy, where it may be practiced, for much upon which swine will thrive will otherwise be wasted from every garden and kitchen. The expense of finishing the fattening will be small, as a few bushels of corn, rye, or barley meal, mixed with sour milk, or used for thickening a mush of boiled small potatoes, pumpkins, squashes, apples, and the like, will make a fair article of pork.

Most large farmers keep from six to twenty or more swine, to turn into marketable commodity those products not otherwise to be "cashed," and also to consume more or less of the corn crop. The slops of the dairy, the refuse fruit, roots, and vegetables, are thus used up, if not at a high rate of profit, still at a remunerative one, all things considered.

To fatten swine profitably, it is important to commence early in the Autumn, not only to consume the material above named, but for the reason that mild weather is much more favorable to taking on flesh than that of a severer character. In very cold weather, considerable food is required for the sole purpose of keeping up the animal heat, and the less need of expenditure in this respect, the more rapidly will flesh be accumulated. It is well, therefore, not only to begin early, but to provide warm shelter and comfortable feeding-places. A good pen is a matter of economy, for a discontented, restive animal will never fatten well, though there may be small lack in the eating power at any time. Proper sleeping apartments, dry, well littered and well ventilated, are also requisite. Pure air, it should ever be remembered, is of importance to every animal that breathes.

Experiments unite in showing the importance of

eooking food for swine. Stevens remarks in *The Book of the Farm*, that "it has been ascertained that pigs fatten much better on cooked than on raw food. This being the case, it is only a waste of time and material, to attempt to *fatten* pigs on raw food of whatever kind; for, though some sorts of food fatten better than others in the same state, yet the same sort, when cooked, fattens much better than in a raw state." This is especially the case with the various fruits and vegetables; grain ground and slightly fermented, is thought by some experimenters to be equal to meal in a cooked state. It may be that it is better relished, and hence more is consumed, and it may be as well to remark that the management in feeding which tends to the largest consumption of food, without injury to the health of the animal, is generally the most economical.

The comparative value of different grains for fattening pork has not been so closely tested as is desirable, but, without question, Indian corn stands first on the list. Rye and barley come next—and late researches, as well as experiments by practical farmers, give the latter grain a more prominent position than it has heretofore held in this respect.—We have made considerable use of barley meal for feeding purposes, the past year, and are so well satisfied, that we shall use it more largely in future.—We would suggest to farmers its employment for early feeding, before the corn crop matures, believing they will find it profitable to do so.

In regard to feeding, it is important to supply hogs, and all fattening animals, with just as much as they will consume without wasting, either by leaving, or by imperfect digestion. If no more is given than just enough to support the natural growth, no fat can be accumulated. To give them as much as they can use, and no more, is the true economy; for, as above hinted, the quicker the fattening process can be properly performed, the less the expense in care and material.

The full discussion of our subject—including the proper age for fattening—the previous rearing and management—the preparation of food—the arrangement of pens—the attention which should be given to the important item of their manure, etc.—must be left for the future. We invite correspondents to give us their views on these questions.

HOGS VS. DOGS.—"What a dog lives upon will keep a hog." If anybody doubts the truth of the saying, let him kill his useless dog, and put a pig in the pen and give it the dog's allowance. He will find in a few months that he has a fine, fat porker, fit to be eaten—a use the dog could not be possibly applied to by any Christian man. There are too many. If they had all been killed a year ago, there might be 200 lbs. of good fat pork in the country, to balance against every dog so set aside, which would be no inconsiderable item in the present scarcity of supplies. Dogs are a nuisance, and should be taxed. While every farmer keeps his dog, and every free negro his two or three dogs, sheep stand a poor chance to get through the world, and yield their annual fleece with untorn throats.—The increase of the dog population accounts for the scarcity of sheep.—*N. C. Planter.*

From the Valley Farmer.

READING AND UNREADING FARMERS.

There is a large class of farmers who do not appreciate the advantages of intellectual culture in its relation to their profession; who do not seem to realize how much mind has to do with farming.—They count muscle, bone, sinew, as the grand outfit for a farmer. If he is large enough, and strong enough, he will do for the farm, whether he has brains or not.

Now, from all such views we beg leave to dissent. Much as we value bone and muscle, we prize *brain* more. Much as strength is needed in the farmer, *mind* is needed more. Valuable as are the bodily forces, the mental forces are still more so.—The body is but the tool, the mind is the hand that works it. Mind is as all-important with the farmer as with the statesman, the poet, or divine. Indeed, nowhere is mind more omnipotent than in the domain of agriculture. Give the farmer mind enough, and he will make the "desert blossom as the rose," and the very rocks yield him harvests. The barren country becomes fruitful under the tillage of intelligent farmers, while the richest soil wastes its energies under the hand of ignorance, however strong it may be. Mind is the farmer's might. As everywhere else, so on the farm, mind is the moving force. Farming is successful and profitable just in proportion to the amount of mental force expended upon it. "The mind is the measure of the man," and farmers must be measured by this standard. Put that down as a fact—fact number one.

Fact number two is this: Mind is efficient in proportion to its culture. In every field of mental labor, success depends largely on culture. The best musician is he who cultivates most his power. The best artist is he who gives the best culture to his "faculty divine." The best navigator is he who studies most, and with the best judgment, the science of the sea. The best engineer is the man who most thoroughly prepares his mind with the requisite readiness and skill for sealing mountains and bridging valleys. The best professional man is he who gives the largest culture to the mind he employs in his profession. Just so it is with the farmer. The better his mind is cultivated in the direction of his calling, the more successful will he be.—The more he knows the more he does. To use machinery, to apply science, to evolve principles in his pursuits, requires a cultivated mind. The dolt and ignoramus cannot do it. At a glance, anybody can see that mind works successfully just in proportion to its degree of culture.

Now we have a third fact for the reader. It is this: Reading is one of the best means of mental enlightenment and cultivation. The reader is the man of knowledge and culture. The artist studies the books of the Masters. The poet reads the written words of fire aglow on the pages of the great ones gone before him. The philosopher reads the productions of all profound thinkers. The professional man reads the books of his profession. To be great, one must read. Reading develops the strength as well as the quality of the mind. Every man must read in the direction of his practice.—The farmer does not want to read works on philos-

ophy, poetry or music, so much as on farming.—Farming is his business; his profession. In it he must live, and rise and shine, if he shines at all. He should have and read a farmer's library. Books and papers on farming should be his study. He should study it and practice it as a science. So will he cultivate his mind; so will he give a wondrous power to his hand; so will his fields whiten with an abundant harvest; his flocks multiply and improve; his home beautify; his wife smile; his children grow up to gladden his heart and improve the world, and honors gather thick and fast on his intelligent brow.

ROGER SHERMAN'S PLOW.

In wandering through the Crystal Palace, we saw a weather-beaten old *revolutioner* of a bar-share, standing in honorable companionship with the beautiful modern implements which crowded the Agricultural department. It was just such a plow as we had often seen laid aside, in our boyish days, in our grandfather's barn, with a huge beam, stiff uprights, and pegs for handles, and a wooden wedge-shaped mould-board, capped off with a light iron share. This was Roger Sherman's Plow. Our thoughts rushed backwards over the lapse of more than a century of bye-gone years, to those times when patriotism was found associated with industrious pursuits, and when the statesman was not ashamed to turn up the mellow mould of the primeval land. We grasped those rude handles, and, even in these our degenerate days, felt an ennobling thrill stealing up our arms and creeping around our heart. "*Roger Sherman's Plow, 1740.*" We stood long between those stilts, reflecting upon the world's changes since the sage and patriot had thus grasped them in his hands. The sculptured elegance of the Roman world—the rich products of old mother England—the luxurious wealth of the tasty Gaul, from every European realm, and the Isles of the sea—the rising genius of our own country, all lay before me in that pictured house of industry and art. Rich gobelins and lustrous carpets, life-like marble and breathing pictures, colossal bronzes and gold and diamonds—all that taste could gather and wealth summon to its presence, was there. Steam, strong, giant son of Vulcan, and his younger sister, Electricity, here held their courts of science—ruling the destinies of millions by their commanding power and silent messages.—I was in the palace of art's enchantments, and had no sympathies with the busy, moving throng around me. The realization of the patriot's dreams was a living presence. The wildest predicted destiny of our country was before me—a great nation—second to none on the face of the globe—not like Europe's greatness, with the national heart throbbing against its prison-bars, but mighty, expansive, breathing of that delicious freedom transmitted by a pure ancestry, and powerful in the consciousness that right will always receive prospering smiles. How we wished for the presence of those great givers of our constitutional freedom that day! We might have lingered longer around that thought-moving relic, but the sombre robes of a pair of venerable Quaker negroes attracted our gaze. We approached them

in time to hear the old woman say, "Well, Jacob, is thee satisfied? I am; for I have seen Washington; I came to see him, and not those wicked women of marble." We walked away, leaving the sable pair entranced before Marochetti's colossal statue, reflecting that the Exhibition was worth something, if it contained only Roger Sherman's Plow, and brought to mind the Father of his country.—*Southern Agriculturist, Dec., 1853.*

From the Genesee Farmer.

FARM BOOK.

"For the best plan of a book in which the farmer can record his practice and experience in the plainest, most simple, and concise manner."

The value of a well kept farm record can scarcely be over-estimated. It should be clear, explicit, and comprehensive—should contain the daily operations of the farm, notes of the weather and its vicissitudes; all interesting items about the animals of the farm, dairy, orchard; a separate record of every crop cultivated—in short, everything worth remembering about the operations of the farm. This could best be arranged in two books—one for daily notes of work and the operations of the farm, which must necessarily be bringing many things together, not properly connected, but only to be remembered; the other, the book for future reference, or ledger.

The arrangement of the daily journal would be very simple—the book to be filled regularly, from the beginning, with the date prefixed to each day's record, so that it would be a continuous record from one day to another through the year.

The ledger should be large enough for the purposes of one year, or may be sufficiently large for several years. It should contain, under separate heads, so as to be easy of access, all the substance of the journal, with some important additions. It may be as follows: First, an alphabetical index, containing the names of the subjects treated of in the book, with the number of the page assigned to it standing opposite. Each subject in the ledger is to be treated separately, on a separate page, and to contain only what the farmer will need for reference. Much of this matter is to be drawn from the journal, and may be transferred at regular intervals—each week, or month—or at the most convenient times. If Apples be the subject of the first entry, it will be put on the "A" leaf in the index, and given the first page in the book. If Wheat is the next subject, the name is to be put on the "W" leaf in the index, and to occupy the second page; and so of each subject to be treated.

The ledger will contain much that need not be recorded in the journal—as the account of each field kept by itself—the kind of crop, when put in, when harvested, with the yield, would be very useful for future reference, and to compare one year with another. In this way, the yield of the farm, or any part of it, is easily made out.

In its appropriate place, at the end of the year, will be made the balance-sheet, containing the expenses, the losses, and the profits. This could be made very readily from a well-arranged book.

In this way, a farmer will, in a few years, have laid up a store of experience that will be always val-

uable, and especially if he is a man of progress; for if his cultivation at one time is faulty, the record of it is continually before him, and the admonition will not be lost.

SMOKE FOR WOUNDS.

A correspondent of the *Country Gentleman* mentions the case of a horse, which was just ready to die of an old and festered wound. Fortunately, he adds, at this stage of the case, an old Pennsylvania teamster came to our relief, and recommended smoking with old shoes. A smoke was made of old shoes, soles and all cut in pieces, in a hog-trough, and placed under the swollen parts. In a few hours the swelling wholly subsided, and the sore commenced discharging matter; the horse was saved.

Some years after this, I heard two persons talking about a horse which had been gored in the abdomen. In this case, everything had been tried in vain; the poor creature must die. At my suggestion he was smoked, and when I next heard from him, the old horse was well. So much for old wounds.

In the same year I cut my foot with an axe.—The lady of the house, seizing the foot while it was yet bleeding freely, held it over a pan containing smoking tag-locks. In a few minutes the bleeding stopped, and the smoke was removed, and a bandage applied to protect it from accidental blows.—The wound *never matured*, and, consequently, *never pained me*. I have seen this remedy tried in many similar cases, and always with the same results. Let the reader bear in mind that no liniment or salve, drawing or healing, should be applied; you have merely to smoke the wound well, and nature will do the rest.

I suppose the smoke of burning wood would produce the same results, but it would not be so manageable. There is a principle in the smoke of wood which, when applied to the flesh, coagulates the albumen, thus rendering it unsusceptible of putrefaction. The same principle stops bleeding by coagulating the blood. It promotes healing, and may be applied with decided benefit to almost all ulcers, wounds, and cutaneous diseases. See Turner's Chemistry, by Liebig and Gregory, p. 1242.

For chapped hands and lips, molasses is the best remedy ever used. If my cows have sore teats, or an ox chafes the outer skin, so as to occasion the blood to start, I apply molasses.

WHO WOULD NOT BE A FARMER?—The Louisville *Courier* pays the following tribute to the occupation of the farmer:

"If a young man wants to engage in a business that will ensure him, in middle life, the greatest amount of leisure time, there is nothing more sure than farming. If he has an independent turn of mind, let him be a farmer. If he wants to engage in a healthy occupation, let him till the soil. In short, if he would be independent, let him get a spot of earth; keep within his means, to shun the lawyer; be temperate, to avoid the doctor; be honest, that he may have a clear conscience; improve the soil, so as to leave the world better than he found it; and then, if he cannot live happily, and die content, there is no hope for him.

MANURES FOR GRASSES.

Nearly all the experiments which have been made with artificial manures for grasses, indicate that, like wheat, barley, oats, etc., the grasses proper—such as timothy, rye-grass, etc.—require a large amount of ammonia. In the park at Rothamsted, which has been in grass for a great number of years, and the crop frequently made into hay and removed from the land, manures containing much ammonia were very beneficial on the grasses; while those furnishing potash, soda, and other inorganic substances, had the effect of causing clover and other leguminous plants to spring up and flourish. This effect was very marked, and the result fully sustains the deductions made from direct experiments on clover, wheat, barley, etc. We are warranted in concluding that clover and other leguminous plants require a larger amount of alkalies in the soil, than wheat and the grasses generally, while the latter require manures rich in ammonia.

Some experiments recently made in Scotland, by Thomas Ferguson, also favor this opinion. Land recently seeded with rye-grass and clover, was top-dressed with various fertilizers. Those furnishing a free supply of ammonia, or nitric acid, increased the rye-grass to such an extent "that the clover plant was choked and came up very thin in the aftermath." One hundred and twelve lbs. of sulphate of ammonia, costing \$4.50, gave an increase of 1,524 lbs. of hay per acre; 224 lbs. of Peruvian guano, costing \$6, an increase of 1,260 lbs.; 112 lbs. nitrate of soda, costing \$5, an increase of 1,540 lbs.; 280 lbs. of super-phosphate of lime, costing \$5, an increase of 292 lbs.; while sulphate and muriate of potash gave an increase of only 30 lbs.

In another field, on a two-year-old pasture, an application of five dollars' worth of guano "at least doubled the outlay in grass, as also the sulphate of ammonia and nitrate of soda, all of which thickened the grass plants, beside giving them a quick growth."—*Genesee Farmer*.

AFRICAN AGRICULTURE.—Dr. Livingstone, the great African traveler, says, that on the western coast of Africa, in the valley of Lucaila, the soil is very fertile. Fruit-trees and grape-vines yield their fruit twice a year, and grains and vegetables do the same, if sown. By taking advantage of the mists of Winter, three crops of pulse are raised.—The grass is so tall, that in one section it was two feet higher than his head, when standing on the back of an ox, and was as large around as a goose-quill. Produce is very cheap, and the roads very poor. They have two breeds of cattle—one is of diminutive size, with short horns, and the other has legs nearly six feet in length, with large horns. The Africans are fond of cattle, and spend much time in ornamenting them. They shave the horns in order to carve them into fantastic shapes, and brand the skin with a hot knife, so as to make a discoloration of the hair in lines, like a zebra.—The stranger the marks, the handsomer the animal. The greater the contortion of the horns, the greater the value. He saw tobacco eight feet high, each plant having thirty-six leaves. The leaves were eighteen inches long, by six or eight broad.

From the Southern Cultivator.
HOGS, SLOPS, CATTLE, PEAS, &c.

MESSRS. EDITORS:—I send some valuable information to those who follow it in practice.

Hogs salted and given copperas, ashes, (hickory) and sulphur are almost certain to be healthy—but not without a little corn. If allowed to lie around quarters, in old beds, in the dust, they will certainly have lice, coughs, and everything else.

They must not be fed on the same place until the dust is two inches thick. It will get up their noses and into their throats, and cause coughing.

Sulphur sprinkled on the back will drive away lice, and tar and grease with sulphur in it, will do the same.

A teaspoonful of arsenic given to each hog, will cure cholera, and many other diseases.

How many of your readers have a barrel at the kitchens of house and quarter to save the “slops?”—an invaluable drink for hogs and cows.

Cattle salted well—not once a week—if attacked with the disease that has killed so many, will seldom, if ever, die; and this is known to those who have lived in districts affected.

WILL PEAS KILL CATTLE, &c.?—Yes and No. Yes, if turned on a full pea-field without being fed and watered before turning in; and then, if allowed to stay too long at a time. No, if fed and driven out for the first two days, after being in fields an hour or so in the morning and afternoon.

Peas will kill young hogs—after running in a pea-field during the Winter—in the Spring, but will not kill old hogs—at least the shoats die faster after running in a pea-field. Why, unless the peas cause it, I do not know.

Yours, &c.,

JOHN O. GUION.

REMEDY FOR HOG CHOLERA.—From almost every section of our land, we hear of great fatality among hogs. This pestilence became so epidemical among our large pens in Baltimore, (the disease being precisely similar to what we read of elsewhere,) that immense loss was sustained, frequently, by the death, in rapid succession, of one-tenth of three or four thousand hogs, belonging to a single owner.—Of course it attracted a deep interest and thorough investigation. My friend, Dr. Higgins, recently State chemist of this State, recommended small doses of pulverised barilla with their feed, which not only cured those that were affected, but, upon the slightest appearance, at once checked all symptoms of disease. Mr. Orren Smith, one of our largest distillers, who applied to me for the preparation, has no question of its complete efficacy. He is never without it, and would, no doubt, take great pleasure (if addressed) in communicating all the facts, should this communication attract the eye of any one who is interested. It has never before been made publick, that I am aware of. K.

NOTE.—The above remedy, contained in the report of the Maryland State Chemist, was published in the March number of the Planter. “There is some trouble,” says Dr. Higgins, “in the solution of barilla, and on this account soda-ash should always be used with it. About ten grains of soda-ash, and the same amount of barilla, should be given to each hog two or three times daily, mixed in their food.” [ED.]—*Southern Planter.*

WILL IT PAY TO KEEP POULTRY IN LARGE NUMBERS?

I have raised large numbers of barn-yard fowls for several years, and have invariably found that fifty or sixty hens would produce more eggs through the year, in proportion, than twice the number, as they require a variety of food to keep them in health; and when out of health or keeping, they will not lay eggs, or hatch well. If they do hatch, the chickens will sicken and die in a few days, for the want of insect food, feed them as bountifully as you will. You may prevent it, in a measure, by feeding them fresh meat twice a week, chopped fine, with Indian meal, until they are a month or six weeks old; they will then be strong enough to ramble beyond the common walk of the hens, and obtain insects, as they keep all clear where they take their daily rambles. I have kept ten dozen hens, and I never, in the best season, got more than six dozen eggs per day. I have kept four dozen, and got thirty-nine per day; from two dozen, I received twenty-three per day, for six months. I have tried it several times, and found I got the largest quantity of eggs, and twice the number of chickens in proportion to the number of old hens. I found that to have hens lay eggs, they must have their liberty a share of the time. It is the same with turkeys. The young ones are very tender, and they must have animal food or they will sicken and droop, and die. If they run with a hen turkey, she will take them through the fields when the dew is on the grass, and they soon die. I raise them with a barn fowl. This last season I raised eighty chickens and ten turkeys with five barn hens. They had two acres of commons, and four acres of corn and potatoes to ramble over. I feed boiled potatoes with oats, and Indian meal jammed with them when hot, placed where they could eat when they pleased, when cool. I had five more hens that furnished my family of six with a plenty of eggs for their use, and do so yet. This is the result of my experience for many years.—Z. KNAPP, in *Genesee Farmer.*

“SHOULD THE SUCKERS BE REMOVED FROM CORN?” Not unless you have plenty of boys, with nothing else for them to do. The argument in favor of removing the suckers from corn, I suppose to be this: The suckers rob the stalks of nourishment necessary to their growth and perfect development, and appropriate it to their own use. They never have but little if any corn upon them, consequently are of no value except for fodder.

I think it will not pay to remove them, unless, as I said above, there is no other work for the boys; and perhaps not then, unless it be to keep them out of mischief. Suckers are not often thrown out from corn on poor, hungry soil; and when they are, it is conclusive evidence to me that everything is as favorable as it can be to the growth and perfection of the crop; that it is growing as fast as it can; that the roots are taking up the necessary food for the plant as fast as it can be manufactured (so to speak) into corn, and perhaps faster; and that, as a natural consequence, these new shoots or suckers are thrown out because the sap or food for the plant can go in no other direction.—*Genesee Farmer.*

The Farmer and Planter.

COLUMBIA, S. C., APRIL, 1859,

HINTS FOR THE MONTH.

The first month of Spring—"blustering March"—has been to the planter but little better than his predecessors. After various premonitory flourishes, we were entertained, on the 7th, with the big rain of the season, being 18-10 inches. It was the first regular "trash mover," and those who were not lucky enough to have their ditches clean, can doubtless testify to the truth of the oft-repeated adage—"a stitch in time saves nine."

Over five inches of rain have fallen during the month of March; and it is a little remarkable, that, notwithstanding the general mildness of the winter, vegetation never seemed more backward. On the 16th of March, not a dogwood-blossom to be seen, the sassafras and hickory buds not open, the partridges not paired off, crop grass not visible, and a very tardy flow of sap in the trees of the forest.

The Spring bids fair to be a backward one, and you should "make hay while the sun shines."—Keep your plows moving whenever the ground can be found dry enough. It will not do to plow wet land when the wind blows and the sun shines, as it does in April. This month is mainly devoted to king Cotton, and it is a very important era to his majesty. You cannot make a good crop without a good stand, and you cannot often get it without pains-taking. Don't believe in the old notion, that it makes no difference how you "put a crop in;" but take pains, plow deep and close, have a good mellow bed, roll the seed in ashes, plaster, or phosphate of lime; drop and cover them carefully.

It is needless to offer suggestions as to the best mode of covering cotton—every planter has his own notions, and should be governed by the character of his soil, and the peculiarity of the seasons. It is enough to say, that much of the success of the cotton-planter depends upon the vigorous growth of the young plants; and the surer way of securing this is to plant carefully, and in season.

As soon as your corn is large enough, "run round" it with a long seeder or subsoil plow, hoe, and replant. If you have the time to spare, you will lose nothing by giving it a thorough plowing.

See that your wood-yard is well supplied, fences righted, plows, gear, and farming implements generally in good order. Have rails hauled for your cow-pens, and all odd jobs attended to.

Stock.—Have an eye to young heifers and old cows, especially. When the buds are out, they

should have salt and ashes regularly, and plenty of dry food. Take the stock off your wheat, barley, &c., save what you intend for Spring pasture.—Shear your sheep the first clear, dry weather; turn their noses, and turn them upon a woods pasture, where they can be protected from the sun, as well as the dews and winds.

A PLAIN TALK WITH READERS AND CORRESPONDENTS.

"Bear ye one another's burdens."

We have received some two or three specky communications in relation to the last Fair—in the main complimentary, but in some instances, indulging in captious criticisms and personalities, the publication of which could do no good, and might do harm to a good cause. It is our design to steer clear of personalities, and to keep everything out of our columns which may have a tendency to produce heartburnings or unprofitable controversy.

From our past experience, we are satisfied that strictures upon the management of the Fair, in the press, effect no good purpose—they furnish a very convenient weapon to the hands of the old fogies who denounce all such new things as humbug, and they are decided bores to the most of readers. Such communications should be addressed to the Executive Committee. It is composed of gentlemen of intelligence and urbanity, devoted to the success of the Society and its popularity, and they will doubtless be most happy to receive all suggestions in the proper spirit. In fact, the better plan would be to bring up these matters at our night meetings during the Fair. Let every member pour out his private griefs, or suggest his remedies for wrongs, his evidence of sins of omission and commission, and have the whole matter sifted and disposed of in the bud. Explanations satisfactory might be made, new wounds healed, old sores cured up, and everybody go home with the determination to remove rather than throw stumbling-blocks in the path of the Society.

We have received some strictures upon articles published in our journal. We invite criticism upon everything published in our columns—we want the grain sifted out of the chaff—but it must be done in a proper spirit, kindly, courteously, and without personality. While public gentlemen may not mind being handled "without gloves"—being used to it—plain farmers and planters (naturally averse to coming before the public) do not like to be "cuffed about the ears." No communication written in an improper spirit, or without a responsible signature, will be published.

It is our aim to encourage a free and honest interchange of sentiment amongst the tillers of the soil; to advance, rather than retard improvement; to

diffuse light, by encouraging the doubters and the timid to write and read for themselves; and, above all things, to bring about a harmony of sentiment and an abiding confidence in the honesty and sincerity of that class sneeringly called "book farmers," to advance the prosperity and happiness of their fellow-laborers. Until this can be achieved, it is sheer nonsense to expect that the Agricultural class will occupy its true position in society. We must learn to bear and forbear, to trust in the good intentions of others, if we wish to be trusted. We cannot afford to be at variance—it is too expensive an operation, if not unbecoming.

RESOURCES OF THE STATE.

We are indebted to the courtesy of Mr. LIEBER, for a copy of his "Geological Survey of South Carolina, 1857." It is from the press of "R. W. GIBBES, State Printer, Columbia," and is a neat specimen of typography. The plates were executed in New York. They are beautifully done, but blurred by some unfortunate blunders in coloring, which will produce confusion. By a resolution of the Legislature, printed on the fly-leaf, we are informed that each member of the Legislature is entitled to a copy—the remaining copies to be placed in the hands of the Governor, to be deposited as follows: Twelve copies in the Legislative Library; two copies in each College and public library in the State, and the remaining copies in the hands of the book-sellers and store-keepers throughout the State, to be sold at cost, &c.

If it be the policy of the State to conceal its treasures, and retard the development of its resources, this is all very well; but it strikes us as something unusual, that the people, who "foot the bill" of this Geological Survey, should be required to pay for the privilege of reading the book. And if it be desirable that anything should be known of us out of our own borders, and foreign capital and enterprise enlisted in developing our internal resources, or a higher appreciation of our wealth and enterprise entertained abroad, we have certainly not adopted the best means of achieving it. It would have been at least common courtesy, to have ordered a few copies to be sent to the public libraries of our sister Southern States.

Unfortunately, the science of Geology, to the majority of readers, is a subject of very little interest; in truth, to a very large proportion of the most intelligent, it is a sealed book. It requires a good deal of moral courage to attempt the removal of the obstacles which lay about one's path, in the shape of Diorite, Itacolumite Melaphyre, and Schistose Aphanistic Porphyry. There is, nevertheless, beneath the huge masses of conglomerates, a mine

containing a vast deal of good metal, well worth working out. To the political economist, it should be particularly interesting, because it involves all those important problems of the part which diversifying interests play in developing new resources of wealth, adding new stimulants to commerce, and the direction of labor and capital into new channels. To the agriculturist it is even more important, for the fertility of his soil depends upon the formation upon which it rests, and so does its capacity for improvement. A soil is but the crumbling of the rocks upon which it rests, with the addition of the carbonic acid and ammonia which it has, during a long period of years, been collecting from the air, and the dews and rains; and if it be made of a poor rock, it must needs ever be a poor soil, unless you add the fertilizing elements. By way of illustration: a soil resting upon coarse-grained, easily-decomposing granite, will be found free, productive, and readily restored by deep plowing and rest, simply because deep plowing turns up to the surface particles of rock rich in the mineral food of plants, which is readily decomposed by the action of the air, rains and dews.

So the geologist would tell you, wherever you may have a porous soil, resting upon a subsoil through which water percolates readily, you should always plough it deep, and keep a crop of some sort growing upon it, to prevent its salts being leached out by the rains. A trap soil will pay better for an application of vegetable matter than most others, because it contains a larger proportion of lime, ready to convert it into food for plants.

Mr. LIEBER's Agricultural chapter will be found very interesting and instructive. It throws a flood of light upon some very important matters, and disrobes a good many of the clap-trap humbugs of the day of their fascinations. It is a plain, practical chapter, which can be read and understood, and we commend its careful perusal to our readers.

We would like to see a little more statistical information embraced under the Agricultural head, and inferences drawn from the characteristics of different sections of the country—their adaptability to improvement; the production of grass, grain, cotton, &c.; the amount and effect of emigration; the increase or decrease of the area cultivated, and such kindred subjects.

Minerals and Mines.—The Districts of Union and Spartanburg (surveyed in 1857) Mr. LIEBER pronounces rich in mineral resources. If his views be correct, a glorious future will be their "manifest destiny." "England," he remarks, "with all her immense manufacture of iron, would rejoice to be able to boast of one single region where iron ores of this quality occurred, in equal abundance. It causes

melancholy reflections, to be obliged to assert that, notwithstanding this, our iron manufacture is rapidly drawing to a close." It is incredible, the amount of capital that has been sunk in the manufacture of iron in South Carolina. With the best ore, and the greatest abundance of it, right at hand; the best water-power, and an abundance of fuel, ruin has, in most instances, fallen upon every company. It has generally been the result of bad management; we have followed our proclivity to build up grand establishments, to do everything on a magnificent scale. The forests have been recklessly cut down, and, at the moment when we should have begun to realize some benefit, our magnificent establishments must be abandoned, for the want of fuel. In connection with this subject, Mr. LIEBER alludes to the practice of "burning the woods for a range"—a villainous species of incendiaryism, which deserves severe punishment.

There is no limit to the material for building-stones throughout this region. The best of Granite abounds, and Marble, also, in some localities, very good. Limestone appears at intervals, of good quality, and abundant across the whole upper part of the State.

There is an old Spanish proverb, we believe, that one may grow rich on a copper mine, may live on a silver one, but will be sure to break on a gold one. We are very much inclined to agree with the chronicler. Now and then we meet with rare fortunes amassed by gold miners, but the number of failures could not so easily be enumerated. Our gold mines abound, and may contain ingots and diamonds in profusion, (imaginary,) yet we attach far more importance to copper, lead, and silver.

Mr. LIEBER seems sanguine as to our copper wealth, and hints at valuable deposits of silver and lead.

"Indeed," says Mr. L., "there is great reason to believe that at a future day the north-east corner of Spartanburg, and the north-west corner of York, with a small portion of Union, will form a highly important mining district, in which the iron ore-beds, to which it has hitherto owed its whole reputation as a mineral region, will form the least important resources of wealth and prosperity. The population will be entirely changed, and the scattering shanties of iron-ore quarry-men and charcoal-burners, will give place to the thriving villages of industrious mechanics and miners.

"This District would be enclosed by a semicircle, having the point where the Broad River enters our State for its centre, and the distance thence to King's Mountain as radius, and would, therefore, cover about eighty square miles.

"Such a remark may appear, to many readers, to

be overdrawn, and too highly colored. Yet it is the result of a careful inspection of the region, and is not more improbable than the prophecy of the Franciscan Monk, of Hiendelencia, in the Spanish Province, where now productive mines are worked."

We sincerely hope that Mr. LIEBER may live to see his prophecy fulfilled. It is gratifying to know that the explorations, so far, have been highly encouraging, and it is pleasing to hope, even, that a day may come, when a region of country only remarkable for its healthfulness and its poverty, may become prosperous, and teem with a population remarkable for intelligence and virtue.

THE GUARDIANS OF THE PATENT OFFICE.

An illuminated farce was played at Washington, in January last, at the special instance and request of the Secretary of the Interior, and under the direction of "D. JAY BROWNE," of the Patent Office, as scene-shifter. Theoretical (or, as a distinguished financier of Charleston once termed them, "*theatrical*") men, with great proclivities for spouting, were invited to meet the *agricultural stipendiary* in grave council, as to arriving at a clearer conception of the agricultural wants of the people of these United States. They were notified that they would receive mileage, and twenty-five dollars each for personal expenses, during their sojourn in the Federal City. A large number of the "*impracticables*" "met according to notice," and resolved themselves into "An Advisory Board to the Patent Office." Everybody made speeches on this great and growing country. Mr. President WILDER, of Massachusetts, made a special speech to the President, and the President responded. All agree that the party had a good time generally—and we believe that but little harm will result from the spree. We are glad that South Carolina was not represented by a single planter of note, and particularly rejoice to see that her agricultural honors were showered upon the inventor of an easy-chair, from Charleston, who happened to be at Washington, prosecuting a renewal of his patent. We don't think our part of the country will suffer, if the planters will keep out of such bogus meetings. We, however, do object to the funds of the Government being thus squandered—believing that the Patent Office has no business to attend to agricultural matters. Whenever a proper Department of Agriculture is instituted by the nation, it will be time enough to pay the expenses of self-constituted Agricultural Boards, to enable hybrid politico-agriculturists to visit the Capitol at the cost of the Treasury. This was, indeed, a puny dodge to help the protectionists—but we really must stop, for we have devoted more attention to the still-born affair than it deserves.

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THE BATCH OF AGRICULTURAL COLLEGES.

The late Congress enacted a law for the erection of an Agricultural College in each and every State of the Union. This munificent endowment was to cost nothing to the people—a portion of the proceeds of the public lands was set apart for the purpose—and the Representatives and Senators voted for it, as a great measure, in sufficient numbers to carry the bill.

The plain facts of the case show that its support was derived from other causes than a desire to give agricultural education to the people. This provident benevolence never entered into the plan. It was a clap-trap plan to encroach upon the legitimate receipts of the treasury, and thus add other arguments to favor the advocates of protection. It was simply a scheme to cripple the finances of the nation, in order to shackle the people with a high tariff. It is not our province to interfere in the politics of the day, but this is a side question—free for agricultural journals to pass upon. The country owes a vast obligation to the President, for his firm and prompt veto of the nefarious scheme.

Agricultural education, by States, or by individual endowment, is another issue. To any such scheme, feasible and well devised, we are ready to give unqualified support. Let the rural men of the age have more light—more scientific information.—Build a school-house in every beat and township—but let the people build and endow them. Never let Federal encroachments throw this net over the strong arms and honest hearts of the only class who know how to value and maintain the true elements of liberty. *

AGRICULTURAL HALLS, BUILDINGS, &c.

One of the first things, after perfect organization, that the local District Agricultural Societies should provide, is proper buildings and fixtures, in order to make their exhibitions convenient, safe, and agreeable, both to exhibitors and visitors. An open lot is usually selected, which, with a few pens, and a rostrum for spouting, constitutes “the tenements and hereditaments thereunto appertaining,” as the title-deeds specify. The ladies, and the thousand little articles of their handiwork, are of far more service in making up Agricultural Exhibitions, than the heavy staples and animals of the land. One successful lady exhibitor will attract to the Fair three times more visitors than the largest herd of fine animals. As this is the case, each Society should have a commodious Hall, where the visitors and articles of exhibition would be safe from the inclemencies of the weather, and where it would, from this security, be convenient to continue the exhibition for a sufficient time to do justice to those who furnish articles

of interest for the inspection of the public. No lady who has a beautiful piece of needlework, will send it to an exhibition where it receives the treatment of a dish-rag hung out to dry on a fence. So, too, the manufacturer of fine machinery desires to have it in a secure building, where it will be safe in every particular. The owners of fine animals desire to have them in other enclosures than rail pens, where they are liable to escape, and frequently to detrimental exposure; and all these objections go far to restrain many exhibitors from contributing, while, under other circumstances, they would show full hands.

The Pendleton Society—*clarum et venerabile nomen*—have a fine Agricultural Hall in the old Court House, left to them upon the formation of the new Districts of Pickens and Anderson. But it is left for Lexington to take the initiatory in this matter, for we learn that her District Society, so ably conducted by its President, J. H. COUNTS, Esq., and its efficient Secretary, Maj. H. A. MEETZE, has subscribed a fund to erect a suitable Hall for the accommodation of her people, and ample stalls for animals. An energetic committee have purchased land for grounds, and the Fair buildings will be all in readiness for the next annual meeting, in October. This is a grand move, and reflects credit and honor on those who have carried out the scheme.—Success and prosperity to all her people. *

HUNGARIAN GRASS---A NEW HUMBUG.

A great excitement has been afloat, amongst the agricultural papers of the North and West, in behalf of a new humbug—“The Hungarian Grass.” It is advertised to be sent out in small bags, at \$3.00; and by one seed-huckster in New York, and a firm in St. Louis, it is styled as “The Honey-Blade Grass;” and, in order to give it a tinge of Kossuth—in whose pocket a few seed lingered, as he lurked about the country on his mendacious tour—the bags are stamped with the Hungarian coat of arms. It is to do everything—make more food to the acre than any other crop—better hay than any other grass—eight tons, worth \$15 per ton—possesses more nutriment, whilst the seed is the most valuable grain grown for horses, cattle, pigs, and chickens—is superior to linseed for oil, and is to fill all the barns and bins of the land, with only the labor of buying it. It is to mature in spite of drought, in southern climates—whilst, in northern regions, where clover and the finer grasses will not grow, it is just the desideratum; and, in southern regions, where they will languish, and not thrive at all, it will grow very prolific. It will stand all kinds of weather—be it wet or dry, the farmer can always rely on his “Honey-Blade.” It is among grasses what the

"Locomotive Succedaneum," or instantaneous vegetable regulator is amongst manures.

But, aside from the humbug, it is, after all, the old *German*, or *Fox-Tailed Millet*, cultivated for the last twenty years in all parts of the country, and a very good grass to sow on rich land. We grow it here, and find it about as good as oats as food for horses, sheep, &c. The seed is worth about \$1.00 per bushel; but, as it is of quick and rapid growth, it is a great exhauster of land. It requires deep, artificially-manured soil; and, even with liberal stimulants, no cereal crops grow well after it. We don't condemn the plant, for God created it to do its special part in the world's culture; but we must hold up the unprincipled men who so elaborately cheat the simple and confiding into the payment of El Dorado prices for the seed. All this class of humbuggery shall receive our especial attention; and, by the time we give them their deserts, all such things as Honey-Blade Hungarian Grass, PEABODY's Prolific Corn (the old Baden), Ever-bearing HOVEY and New Hautbois Strawberries, will find their proper resting-place. We don't object to pay a fair price for a good article of a staple crop, which will succeed about as well as such things ordinarily do, in order to replace worn-out and adulterated varieties; but to give a big price for a thing that is to beat even God's providence in production, is more than we will stand.

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For the Farmer and Planter.

RANDOM RATIOCINATION.

How much depends upon the *inclination*—how much the inclination upon accidental circumstance—and how material the external elements to the elucidation and progress of certain designs, and the fulfillment of given purposes. True, very true; but what connection this prelude to anything practical in agriculture? Let us see, kind reader. But, *imprimis*, let me inquire, *what* are you? A farmer, planter, overseer, landlord, proprietor, or tenant—or, perchance, a *fancy* man—one who has the means, and is in position to be led by the *inclination* solely—for with the bill of fare presented—"Ratiocination"—I fear that your attention thus far is the result of curiosity, and whether we sup together, or part company now, will depend much upon *what* and *who* you are. Let us not wait, however, to determine your *class*, as I have a word for each of you. If you are sensible, you certainly read; and, if the habit of reading has been properly regulated, you assuredly have given a portion of your time and attention to the agricultural paper of the day—The *Farmer and Planter*—if neither, I am sorry, very sorry for you—for it is a *rainy* day—and your resources must be sadly restricted. The outward elements prompt and

invite to a social chit-chat with CERES, the beautiful Goddess, whose portrait so admirably embellishes the *Farmer and Planter*; and, if you are a stranger, let me urge you to lose no time in making her acquaintance. You will find her a worthy and intelligent companion. She will furnish glasses to improve your vision, so that you may behold new beauties upon the surface, and also discover hidden treasures under the earth; and, whilst inviting you freely to partake, will stimulate you to a healthy digestion of all the rich fruits that are so generously flowing from her cornucopias. It is a rainy day—the fittest time for reading, yea, for the study, of agriculture. Practice what you read, as the approval of others, in bright sunshine—but when the elements combine to force man and beast into a day of rest, let the book-farmer and planter be your companion and friend—and my word for it, should there be duplicates of this day in each month, your chief regret will be that friend STOKES cannot come to you once a fortnight, instead of once a month.

See, now, the result of circumstance. If this had not been a shocking bad day, Broomsedge, Baby-clothes, Puddings, Carrots, Summer—Rhodes's Phosphates, the Study of Manures, &c., &c., would not have constituted the bill of fare for my day's repast. They would have been held in reserve for the ides of March; but, as it is, I have partaken greedily of all the good things provided by our friend STOKES for February, and, by way of dessert, I find myself scribbling. And here I find subject for a grave point. I am deeply impressed, that *noted* writers—* editors—are worth following—that certain names give consequence (intrinsically) to all matters they handle—that places, too, have much to do with the interest felt in their productions—and that certain subjects very justly claim special importance, among certain people. What, then, can I witness, and how shall I, a stranger, entirely *incog.*, (in disguise, if you please,) be received among the various classes with whom I would journey during the coming seasons of planting, growing, and harvesting? My friends, *what* I am, *who* I am, *where* I reside, is of not the slightest import to a majority of you. My word for it, my opportunities for observation, and for reaching facts, are ample. My experience is something, and I have for many years attempted to carry out and demonstrate the *fallacy* that farming and planting are incompatible. You are ready to suspect, now, that I am a rice-planter—my signature will confirm the suspicion, as my *nom de plume* is borrowed from a weed mostly known on tide lands. My association is chiefly with planters and overseers, and to them shall I address myself—but to the latter class especially.

To the large proprietor, who leaves his estate en-

tirely to his overseer, and who neither knows, nor cares to know, the difference between agriculture, as a system based upon scientific principle, and the crudities of ignorance, based upon chances and seasons, 'twere vain to hope for a hearing, even, for he has already taken position in the ranks of the enemy. He has no faith in book-farming or planting, and contributes nothing to the perfection of the system. His agent, however, has the desire to be *practical*, and I feel that I cannot render him a better service than to interest him in the publication of a good practical journal. The *Farmer and Planter* comes nearest to his wants—but yet, for us—for rice planters—there is a deficiency. Many of the readers of the journal, in this section, have complained that it contained nothing upon the subject of their chief staple—*rice*. To a certain extent this is true, but the difficulty could be easily overcome, in the absence of contributions from the rice-growers, if the Agricultural Societies would publish their reports and proceedings in the *Farmer and Planter*.—The majority of these societies make it pre-requisite to the bestowal of a premium, that the details of planting, growing, harvesting, &c., should be reported in writing to the Secretary, for record.—These records, many of them, contain valuable information, and wise suggestions, which can only reach the overseers through some journal; as few of them are members of the local societies. I submit, therefore, to the serious consideration of all District Associations, the propriety of publishing their *reports*, if not their *proceedings*, in the *Farmer and Planter*; and I further submit to the sober thought of every planter, the economy of subscribing to the journal, both for himself and his overseer. The price of subscription is so moderate, who would grudge the paltry sum of \$1 to his overseer on New Year's day, as a present for the *rainy* days of the year? You can say, Mr. Editor, that I have set the example, by placing my overseer on your list.

I have written entirely at random, and if you think I have succeeded, and the thoughts are worthy of your columns, you may again hear from what the overseers consider an ugly customer on tide lands,

March 3d, 1859.

ASS-SMART.

DIFFERENT CANDLES COMPARED.—It has been found, by experiment, that the consumption of the different materials made into candles is as follows: Making the candles six to the pound, and snuffing occasionally, so as to maintain a clear and equable flame, stearine consumed per hour 10 grains, spermaceti 143, wax 134, tallow 128. The relative proportions of light were, for spermaceti 10, the stearine 7.4, the wax 6.6, and the tallow 4.7. The composition of sperm oil by a well-trimmed argand lamp, of the ordinary dimensions, (wick one inch in diameter) was about 800 grains per hour; it gave a light equal to 10 or 11 spermaceti candles.

For the Farmer and Planter.

A VOICE FROM EDGEFIELD.

DEAR FARMER AND PLANTER:—Many of us over here have been rejoiced to see you in your new dress; to know that you have found a more central home amongst the good citizens of South Carolina, and to hear your pleasing assurances of bright prospects in the offing. May your pathway for the future be along luxuriant valleys, abounding in green pastures; and may CERES forbid that your shadow should ever be less! May she rather cherish you into such proportions as will suffice to give protection and direction to all the great farming brotherhood of our sunny land.

Having premised thus much, I proceed to pitch very briefly into your * man, on the subject of hill-side ditching.

1st. It is wrong in him to confuse a plain man's ideas by saying that his subject is "Hill-Side Ditching," &c., and then to branch off and discourse upon "Side-Hill Ditching." Why invert the expression, when it is right enough as it originally stood? Why innovate, when the old way is the way everybody is accustomed to? This, of course, is a matter of taste. Not altogether so, either; for it is somewhat important among farmers, as well as among doctors and lawyers, and merchants and schoolmasters, to have a name for everything, and to call everything by its name.

2d. What will the Fairfield planters say to his idea of leaving all the hill-sides enclosed? What will the mountain boys say to it? What would our Horn Creek planters, in Edgefield, say to it?—What would the Petit-Gulf planters say to it? What, in short, would three-fourths of the whole country say to it? And, upon reflection, what does * say to it?

3d, and lastly. I am one of many who differ with your accomplished editor as to the importance and utility of hill-side ditching. The hog-back ridges of Fort Hill do not form a solitary instance of its success. Mr. CALHOUN, I am aware, was the first who put the system into effectual operation. I had the honor, once, of walking with him (he always walked) over his beautiful farm on the Seneca. He had then just gotten fairly into the business of hill-side ditching. He had an admirable overseer, and, between them, they had fixed the farm as every farm should be fixed. Mr. CALHOUN was enthusiastic on the subject, because of the complete success of his experiments. That success was among the first causes that turned the attention of our farmers to this branch of farming economy. It was a good example in a great quarter; and I maintain that it has been well followed, and with as good success as was attained by Mr. CALHOUN himself, on the Fort

Hill place. In Edgefield, the system is well understood by many farmers. Some of our most free and remunerative sections of land are *all hill-sides*. The best of these hills were cleared and exhausted by unskillful culture, long ago. They grew up in old-field pines after that, and were considered done forever. These hills have now been cleared again, and are this day in "better heart" than they ever were. Why? Because they are in the hands of farmers who believe in hill-side ditching, as well as in deep culture and liberal manuring. But on these same hills, that now smile with smooth fertility, neither deep culture nor liberal manuring, nor both combined, would do any permanent good, were it not for the security of hill-side ditching. It is to permanent fertility what entrenchments are to a camp.

Just here, I have glanced again at the * editorial, and am led *this time*, rather to suspect that the writer is quizzing a body. Is it so? Why did I not see this before? It would have saved you and your readers this combative scrawl. But and if he (*) be in earnest, I must say again, that he never was wider of the mark than in his present slurs upon the most useful addition to the farming experience of the day. And you may put that down as

THE VOICE OF EDGEFIELD.

For the Farmer and Planter.

THE HORSE.

The demand for mules for plantation purposes, for many years past, has exercised an unfortunate influence upon the breeding of the horse. The production of every mule is but adding so much motive power for the plantation, without the capacity to increase his species. He is a mule, and nothing more—a very valuable animal as a worker, but no more. The commonest mare, however, bred to a good stallion, may bring good colts, with a fair chance of constant improvement, and a reproduction of their species. The direct and inevitable effect of mule-breeding, is to diminish the number of both mules and horses, and enhance the value of each—in other words, to increase *our* dependence upon the Western breeders, and put money in *their* pockets.

The political complexion of the times is rapidly forcing our people to the conclusion, that a cordon is being rigidly drawn around the Southern States, and that the time is not far distant when we must cut ourselves loose, commercially, from those who have no sympathy with our institutions, and rely upon our own resources. We cannot afford to pamper up a people who are daily becoming less Southern and more Northern in sentiment. We ought to raise our own horses, mules, cattle, hogs, and sheep. We cannot much longer afford to keep breeders out of our own borders, and the sooner we begin to set

about it, *systematically*, the better it will be for us, in every sense of the word.

The State Agricultural Society has, to our mind, shown good sense in their devotion to the Horse department. It is the most captivating of all exhibitions; one in which everybody will take an interest, and one which will always draw a crowd.

The Blood Horse has so long been common in South Carolina, that more or less of the horses of the country have crosses of good blood. It is a little remarkable, however, that among the many importations of fine animals, very few have made their mark so indelibly as to transmit a *decided characteristic*. There have been no Morgans, no Messengers, no fast trotters or pacers, following in the line of a particular stock; but, on the contrary, a general confusion of paces and quality, temper and appearance, durability and substance. This is owing to the fact, I take it, that we have bred simply with an eye to *blood*, and not to the production of an animal fit for the road, or the farm. In short, we have bred without a purpose.

Everybody of common observation must have been occasionally struck with the fact that some horses—often very common country tackies—nearly always get good colts; and that is really the point to which one should look. "I don't care anything about your blood," said a very experienced breeder to me, the other day, "show me the horse's colts."

We have in our eye a neighborhood which was, for a long time, remarkable for its stout, admirably-built and gentle farm horses—they were all the get of a small stallion, who traced back to a "Wonder," and never failed to make his mark. Every neighborhood in which the old "Sertorius" stood, was remarkable, for nearly half a century, for its good stock, while many others have been equally remarkable for bad qualities, following a bad horse. A horse of bad temper or undecided character, will ruin the best neighborhood for a life-time—for you never know really what will turn up, "white man or Indian." We desire to direct the attention of breeders to this particular point: while good blood is a great thing, it is not everything; look for the horse who propagates a good horse—who is *sure* to transmit his good qualities; and be equally particular about the mare. Some mares will bring a good colt from anything; but, for that very reason, they should always be put only to a first-rate horse. It is this very notion, that "she always brings a good colt," which has ruined the stock of horses. Let all the bad mares be devoted to mule-breeding; they cannot do much harm then—a mule's a mule, any how, and there is a chance for two negatives making an affirmative. At all events, he'll find his match and his master in the negro.

The best horse, to our mind, that has been in the State for half a century, was "Argyle." His stock tells everywhere. They are almost uniformly of good color, good temper, fine action under the saddle or in harness, sound and durable. No horses in the back country have been able to bear off as many prizes at the Agricultural Fairs, for several years past, as the "Butlers," all descendants of "Argyle." No Argyle stallion, to our knowledge, has made his mark so strongly as Governor Butler, who, perhaps, owes it to the fact of his being from Mary Frances, and back through a train of unquestionably good stock. I know, in a circuit of twenty miles about, some four or five "Butlers," removed to one and two crosses from "Governor Butler," whose colts have almost invariably been good.

I insist upon breeders directing their attention to this matter more closely, and upon their not breeding to a horse because he is convenient, or because he has a pretty head and neck, a fine color or a stately carriage, or because he is as big as an elephant.

A FARMER.

PEAS.

There has been a great deal said in relation to peas as a fertilizer, but I have known of several cases in this neighborhood in which they have entirely failed for cotton, and I would like to learn the experience of others in the matter. About four years ago, I made the experiment myself, in this manner: I planted a small field of four acres in peas about the 1st of July. When they were ripe, I picked them, and, the vines being very luxuriant, turned them under, and the following Spring planted in cotton. It was a failure. This year, two or three of my neighbors did the same thing, with the same result. Well, my faith in the pea for that purpose is not yet exhausted, and I am trying the experiment once more, with the addition of lime. Now, the question is, how much lime shall I use? (I mean the oyster-shell lime.) Perhaps, after all, I may fail again; for, if the land is exhausted of alkaline matter, viz: potash, soda, magnesia, phosphoric and sulphuric acids and chlorine, there will probably be no good result. The field is high, dry and sandy, and has been in cultivation with various intervals of two, three, five and seven years, for fifty years. It has now been lying out three years.

We clip the above from the correspondence of the *Southern Cultivator*, to call the attention of our readers to what Mr. RUFFIN has called the clover of the South. All efforts at restoring an exhausted soil, without returning the elements which have been taken out of it by repeated cropping, must prove abortive. There is a wide difference between improving the soil and enriching it. You may improve its condition by deeper plowing, judicious rotation and rest—this is all well enough, and well adapted to a farming population, but where cotton is king, something more than rest and rotation will be found necessary. That one might do wonders with the pea, by sowing

it broadcast, dusting plaster over the vines, and turning them under green, may be true enough; but who in the name of common sense ever heard of a planter, who had an acre of cotton to the hand, that could find time to do anything else?

STATISTICS.

The following table will be found interesting and instructive to all persons fond of statistics. It illustrates, very forcibly, the value, commercially as well as agriculturally, of railroad facilities. It is gratifying to mark the steady and rapid increase in the amount of flour, grain, and live stock, sent by our farmers to our own market. Fifteen years ago, Charleston imported an immense deal of flour and grain from the North. Genesee flour found its way far into the interior. Now, the tables are turned—a great impulse has been given to the production of wheat. By the application of cotton-seed (the best of all manures for wheat) the planter can grow wheat on land too poor to pay in cotton. The business has barely opened; when the railroads now under contracts are completed, we have no doubt but a large export of flour and grain, to the West Indies and South America, will be the consequence. But one thing is in the way—a little more liberal policy in the railroad tariff:

Comparative statement of Cotton, Grain, Live Stock, &c., brought to Charleston by the South Carolina Railroad, from 1844 to 1858, inclusive :

Years	Bales Cotton.	Barrels Flour.	Bushels Grain.	Bbls. N. Sts.	Bales Mdze.	Live Stock.
1844...186,638	.....	.....	.....	.....	.....	.....
1845...197,657	.....	.....	.....	.....	.....	.....
1846...186,271	12,148	2,369	48	.....	.....	.....
1847...134,302	19,042	338,848	3,189	.....	.....	.....
1848...274,364	15,447	203,485	5,753	.....	.....	.....
1849...339,996	1,507	66,804	13,919	10,632	6,242	.....
1850...284,935	125	15,515	9,083	8,008	5,859	.....
1851...287,590	526	547	4,198	12,310	4,179	.....
1852...364,729	2,633	15,652	4,316	15,227	4,804	.....
1853...310,865	23,319	109,092	8,992	15,863	8,029	.....
1854...350,857	62,661	136,536	21,642	11,109	12,056	.....
1855...449,544	80,463	817,662	23,093	9,835	12,021	.....
1856...386,349	84,808	456,994	15,079	8,935	11,769	.....
1857...251,850	145,970	717,274	13,282	11,427	9,214	.....
1858...428,452	140,069	282,367	17,418	9,605	12,001	.....

It is not often that insects have been weighed; but Reaumer's curiosity was excited to know the weight of bees, and he found that 336 weighed an ounce, and 5,376 a pound. According to John Hunter, an ale-house pint contains 2,160 workers.—*Kirby and Spence.*

SPRING.—No modern writer can excel the following description of Spring, clipped from a very old book, which cannot be too often read:

"Lo! the Winter is past, the rain is over and gone; the flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in the land; the fig-tree putteth forth her green figs, and the vines with their tender grape give a good smell."

Horticultural and Pomological.

WILLIAM SUMMER, EDITOR.

WORK FOR THE MONTH.

South of this, the principal crop of Spring vegetables will have been sown, and, with the genial weather of this season, will now advance rapidly; still, sowing and planting are requisite for most garden crops. Early York, Sugar-Loaf and other early sorts of *Cabbages*, will now be fit for transplanting. The ground should be well prepared and manured, as it should be kept in mind that the Cabbage should never want for the proper nutriment, from the sowing of the seed in the bed to the full perfection of the head; and a Cabbage thus grown, is quite different from one which is suffered to stand half its time wanting the proper nutrition to bring it to perfection. Rich vegetable compost, with stable manure, will supply this, and super-phosphate of lime will be found a valuable addition. Sow the Large Drumhead, or, what is better, the true *Late Flat Dutch*, or *Bergens late*, for the main or Winter crop. The seed should be grown in the United States, and not imported, as they invariably produce better Cabbages.

Keep your *Asparagus* beds clean of weeds, as they are very injurious. Those who have given it proper attention, may now enjoy in perfection this delicious and nutritious vegetable. Cut the Asparagus as the shoots advance, taking only the rich, green, succulent tops.

Plant successional crops of *Beans* in the beginning and towards the close of the month. The early varieties will be in bloom, and we would advise those who are desirous of having the first early Beans, to test the method pursued by English gardeners—to top off the leading vines when in bloom—as it is said to cause the pods to hang on and come earlier to maturity. The same practice is pursued there with the Pea, though, in our favored climate, with such a valuable early variety as the O'Rourke, there is no necessity for it. Beans and Peas will require good hoeing. The Marrowfats and late varieties should be well mulched, by covering the space between the rows—after being well forked up—with leaves, rotten straw, &c. Apply this after a good season and the crop will continue late in bearing.—The *Irish Potato* will require the same attention.

Melons.—The principal crop should now be planted, and the ground enriched by filling the holes with good compost—add a little guano and salt, with coal-dust or plaster, which will furnish the necessary ingredients for growing good melons.

Cucumbers.—Continue to plant for the main crop, NEW SERIES, VOL. I.—16

in beds properly prepared, five or six feet wide. In the middle of this, in holes made rich and light, plant at three feet distance. Be careful to water them, if the weather should prove dry; this will cause them to continue long in bearing, and the cucumbers will be better flavored.

Celery.—The plants will now be ready to set in trenches, which should be three feet apart, and opened one foot wide; dig the earth out one foot deep, laying it equally at each side in a level order, then dig the bottom, and add good rotten manure, with salt, and dig in. Draw up some of the strongest plants, trim the long roots and tops, and plant a row along the bottom of the trench, four or five inches distance, and finish with a good watering.

Onions.—Keep them clean and well hoed; thin them out, if too thick, according to the use for which the crop is wanted.

Continue to plant *Squashes*, &c., if they have failed.

Parsnips, *Carrots* and *Beets* may be still put in, this month, as the unfavorable weather during the past may have prevented. The best ground for each is a rich loam, inclining to sand, but if the ground is well manured, trenched deep and pulverised finely, they will grow in any soil. We would not only urge their culture upon the gardener, but all who have need for them should not omit sowing them as food for cattle. They tend greatly to improve the quantity and quality of both the milk and butter, and are healthy and nutritious.

Squashes, *Melons* and *Cucumbers*, if attacked by bugs, should have a little soot and sulphur sprinkled over them, early in the morning, to which a little snuff may be added. A little Peruvian guano placed in a circle around the plants, not too close, will also prove a good remedy.

Cabbage-plants that have been grown in hot-beds, or very tender, should be transplanted when the ground is not wet; for, if worked in this condition, it will be reduced to a mortar, and be left hard and full of cracks when dry. The earth should be so moist as to be capable of being finely pulverised, so as to touch, when pressed about the roots, every part, and lie close. The ground should be thoroughly forked up before planting. Cabbages will live and thrive in a moderately moist soil, when treated in this way. The best time for transplanting is the evening.

If the weather is dry, water the plants when set, and, in a few minutes, it will soak in; then draw in dry soil about the plants. This will leave the earth moist, and in good condition for the plants to thrive. Adopt this rule in watering, when necessary, during the growing season, and it will be found that one good watering, once a week, will be worth more

than the daily waterings so generally pursued, which bake the soil, and do more injury than the drought.

NEW AND RARE TREES AND PLANTS OF MEXICO.

No. 2.

A species of *Arbutus* is found in the high mountains of the table-land of Mexico, which might be valuable, if introduced, as it feeds a caterpillar of the Bombyx family, living in societies, and building cocoons of very fine silk, ten or twelve inches long by three and four inches in width. A species of oak is also found, on the Isthmus of Tehuantepec, which, like this *Arbutus*, feeds a caterpillar of the Bombyx family, living in colonies, and building nests two feet long and eight inches wide. One of these weighed 1 lb 12 oz., and the silk obtained from it was very fine and strong.

The famous *Crategas Mexicana*, a hawthorn producing edible fruit, of a fine yellow color, as large as a crab-apple, we have now growing on trial.—There is, also, *Bromelia textilis*, which in appearance resembles a Pandanus, the leaves of which are in great request, as from them the Indians make thread as fine and stronger than silk. It would be hardy on the Peninsula of Florida.

Amongst the rare plants, chiefly of the colder regions, are the *Bouvardias*, of which there are three varieties: *B. Ghiesbrechtii*, or *Flor de San Pedro*, white flower, three inches long, of powerful aroma; *B. longiflora* (HUMBOLDT), with solitary flowers, and not like the Guatemalian species usually thus designated; and *B. multiflora*, a plant scarcely twelve inches high, bearing abundant flowers—leaves very small, like rosemary—flowers white, solitary, and its tube violet. This trio of *Bouvardias* are very beautiful.

But the greatest ornamental acquisition, to us, would be the *Juliana Caryphillata*, a superb evergreen bush, four feet high, bearing a great quantity of white flowers, resembling the orange-blossom in shape and perfume, with a peculiar aromatic fragrance, which is said to be unequalled. This plant would be hardy in the Southern States, having been brought into the valley of Mexico from colder regions farther north. It has never, as yet, been found in its wild state, but is extensively cultivated at a village in the valley, where it is the staple production of the inhabitants. They make it up in wreaths and garlands, which they sell for religious and other festivals.

Lonicera Schmitziana is a new bright scarlet honeysuckle, as yet unknown in Europe; as well as are *Mahonia rubricaulis* and *M. Tolucensis*, new additions to the Berberacæ, and remarkable for beautiful foliage and abundant flowers.

An interesting class of tuberculous flowering plants, among which is the *Convolvulus tenuifolia*, (*a elitoria?*) covered with violet flowers, two inches long, the insides of which are yellow; " *Cuphea montana*, a plant beyond price for forming groups, with snow-white petals; *Erythrina tuberculata*, with its bright red panicles of hundreds of flowers, and which is cultivated like, and grouped with, the Dahlia; *Ipomea truneata*, a plant two feet high, which entirely covers itself with tinted flowers, and to which no *Ipomea* can be compared for beauty; *Rudbeckia grandiflora*, four feet high, red flowers, larger than those of any known Rudbeckia; and *Verbena tuberculata*, with its pale lilac flowers, in form rivalling the very finest cultivated varieties, and a great acquisition for the colder regions, where the Verbena usually perishes. This Verbena has a tuber similar to the Dahlia, and is equally hardy.

In addition to these flowering plants, there are many varieties of fine edible fruits, the most noted of which, is the Aguacate (*Persea gratissima*). There are four varieties of this fruit, which is one of the finest in Mexico, where it is eaten like butter, with bread and salt. It would be entirely hardy in Florida, and, with slight protection, along the Gulf coasts of Texas, Louisiana, Mississippi, and Alabama, and on the Atlantic coast as far east as Charleston.

We hope the enumeration of these novelties will direct attention to their introduction, for experiment and culture.

A TRANSPLANTED PLEASURE.

Our great aim in life has been to afford pleasure to all who fall within our limited circle. Our friends know that, corporally, we have had our scale of operations abridged; but we have always found our hands full, even if with nothing more than our "better half"—our crutches. Since our release from thralldom, we have hopped about amongst our friends—the trees—and, like the birds, in our own way, have had infinite pleasure. We have many friends amongst the young and old, and none more valued than a venerable gentleman, who set his affections on having his own Seckel Pear-tree bearing in his garden, and fruiting under his paternal care.—The largest in our nursery did not fill up the void in his tree-fancy. He implored us, through a friend, to send him one "that would bear in his lifetime." This was more than we could stand.—By the aid of two Paddies and their spades, we selected a beautiful bearing tree of this far-famed variety, and carefully lifted it from its bed of bones, where it grew and flourished amongst its pyramidal sisters of the orchard. We secured a generous circle of roots, and, swathing this tree-beauty in

moss and long-clothes, dispatched it to the anxious owner.

"Begorra," says Pat, "I wouldn't a tore up that three for the King o' Cork—let alone ould Buck."—"And what'll you charge for it?" says Dan. "I don't take it up for the price it will bring, but in order to give pleasure to an old friend." This was new logic to Pat. He scratched his head, and exclaimed: "Maybe the little fellow we stick in, will grow up to the rest." Yes, in fifty years, no one will mark the difference; and may our friend's tree flourish, and reward his care with bounteous crops of "Dutch Jacob's" world-renowned Pears. It was a beloved tree with us, but we easily transplanted this affection with it to him in its new home. He will enjoy its flower and leaf and fruit, and it will add some pleasure to declining years and venerable age.

CHINA ROSES AND OTHER HEDGE-PLANTS IN THE SOUTH.

We have become quite tired of hearing of the "Cherokee and Chickasaw" roses, from men of such reliable authority as THOMAS AFFLECK, and others, in the South—not because they are not good hedge-plants, but because these terms are misnomers to very common, naturalized plants, originally imported into England from the East, and from thence disseminated in America.

The Cherokee Rose, as it is commonly called, is described by ELLIOT as the *Rosa Lævigata* of MICHaux, and was first sent to this country from England by the Messrs. LODDIGES, to the late Dr. T. J. WRAY, of Augusta, Georgia, as an undescribed species from India. By those to whom Dr. WRAY presented specimens, it was called the '*nondescript*.' It did not retain this name long; but was afterwards called the 'Choctaw,' then the 'Chickasaw,' and, finally, the 'Cherokee Rose.' It is by no means certain that it is MICHaux's plant; as that is said to have from three to four leaflets in each leaf; whereas, the plant under consideration has almost uniformly but *three*. It may sometimes have *five*, but we have never observed it with this number: sometimes there are two, or even *one* leaflet; but these are anomalies, and not to be taken into consideration in the description of the plant. It has, for many years, been used in the low-country of South Carolina and Georgia, as forming an impenetrable hedge, and has become quasi-indigenous.

Most botanists have regarded it as a *native* plant. ELLIOTT very justly observes, that, in its habit and appearance, it has very little resemblance to any of its indigenous congeners; and TORREY and GRAY observe, that it is evidently a plant of Chinese origin, which has become extensively naturalized. To

the eye of an experienced botanist, its Asiatic physiognomy is striking and unquestionable.

The entire oblivion which now envelops the introduction of this plant into our country, and the repeated changes of name which it has undergone, is a striking instance of the little attention paid by Americans to the preservation of traditional facts, and the small reliance one can place upon the reports of those who attempt to tell of things which happened even in the last generation."

Thus writes Prof. LECONTE, in the *South Carolina Agriculturist*, vol. I., pp. 291, 292; and, from facts derived from his father, a distinguished botanist of Georgia, puts at rest, and fixes forever, the history of this hedge-plant. We repeat it in order to call further attention to the facts recorded.

It seems that there are now two roses for hedging—one designated "Cherokee," and the other "Chickasaw," by Mr. AFFLECK. He ought to know this latter rose better, as he is a "brother Scot"—it having been introduced into Scotland and England by Lord MACARTNEY, from China, in 1793. Surely, Mr. AFFLECK ought to know his adopted countryman, and not mistake him for an aboriginal. The so-called "Chickasaw" is nothing more nor less than the MACARTNEY rose. It is perfectly hardy in every part of the South, and, commencing to bloom in June, it is perpetual in white, star-shaped flowers, till frost. The variety *Alba Odorata* is the best.—Its flowers are fragrant, cream-colored, and present most beautiful buds. *Maria Leonida* is nearly double, flowers finely cupped, pure white, with a tinge of blush at the base of the petals. The common MACARTNEY is, undoubtedly, a superior hedge-plant.—But hear what Mr. AFFLECK says in its praise, in a recent reply to a correspondent in the *Houston (Texas) Telegraph*:

*

"My correspondent's chief topic, however, is hedging, and with the Cherokee Rose. He understands that I propose to accept of contracts on liberal terms, to hedge for others. On this head, let me refer him to your advertising columns. And farther, permit me to say, I am by no means wedded to this particular plant—the *Cherokee Rose*, so called—but would be glad, indeed, to find another better adapted to the purpose. In the *double white microphylla* Rose, I think we have one equally as well, perhaps better suited to the stiff, black prairie lands, because equally hardy, well armed, and impervious, yet not so rampant. For rich bottom lands I prefer the so-called *Chickasaw* Rose, which resembles the Cherokee, but with smaller, closer, evergreen foliage, and less rampant habit. Upon the whole, however, the Cherokee may prove the safest, if the experience of hundreds running through a period of fifty years, or more, in South Carolina, Georgia, Mississippi, &c., goes for anything; and especially considering the thousands of miles of thorough fence of this plant which exists. That it will suit equally well all soils and localities, may well be doubted. For the low

sea-coast prairie, the *Guisachee* or *Weesatchie* will, no doubt, prove to be the better hedge-plant. For the thinner and poor upland prairies, it is more than probable that the *Osage Orange* will be the best adapted. I had great confidence in the native *Cock's-spur Hawthorn* until this season, when it has been almost entirely destroyed by a small insect of the *Aphis* family, which operates underneath the leaf; and which has been also very destructive to the Quince-trees. And from dread of this same insect, I say nothing of the *Pyracantha* thorn, though as yet no damage has been done. In Western Texas, the *Yucca*, or Spanish Bayonet, and the *Opuntia*, or Prickly Pear, either separated or mixed together, in the end, could, I feel confident, be made to form an impassable barrier. There is a small tree here, of the *Rhamnus*, or Buckthorn family, called by some India-rubber tree, of which, too, good hedges could be made.

"In this, however, it is not a question of what skill and industry *could* or *might* do, but of what may be done economically and profitably. The plant which, when made into a hedge *must* receive a certain and very considerable expenditure of labor *annually* to keep it in the form, and serve the purpose of a fence, is of doubtful value here for that object. That some labor *ought to be* bestowed on a hedge of any kind, at least once a year, is sure. But that plant will best serve our purposes, which will hold its own through a year of neglect, should circumstances compel its being neglected, and will still continue to form a good fence, and may again be brought into its proper form as a perfect hedge, so soon as circumstances will permit the bestowal of the labor needful. In the three roses named, I think we have these plants—Cherokee, Chickasaw, and white *Microphylla*.

"It is true, I could undertake contracts to hedge, this Fall, at so much per mile; but it is doubtful if any have their hedge-rows ready for the plants: hence, it would be better to have that done thoroughly during the coming Winter, and the planting could then be done to some good purpose the following Fall. Still, where the intended lines of hedge have been already in cultivation, and not less than from ten to twenty miles in a neighborhood could be contracted for, it could be done now. The terms, as named in your advertising columns, are \$100 per mile; payable one-half when the hedge is planted, one-fourth after the dressing and replanting is done the next Fall, and the remaining fourth the Fall following. The parties for whom I hedge must prepare the hedge-row thus: It should be thoroughly plowed (having been broken up at least one year before) to the width of ten feet, and as deep as possible. If done this Winter, to be planted next Fall, a crop of cotton, peas, or sweet potatoes, might be taken from it. As early as practicable in the Fall it is to be planted, it should again be well broken up and harrowed, ridging to the centre. I then furnish the cuttings or young plants, and plant. The young hedge must then be tended by the owner, as if it was so much cotton. The following Fall I prune and dress it, replanting when needed. Again the owner tends as before, with some little additional work, as I shall direct. The next Fall I again prune, dress, and arrange it, leaving it an entire unbroken line of young hedge, which, if properly treated, will form a perfect fence the fourth year.—I plant two rows of cuttings, giving a close and solid bottom to the hedge.

"But, above all, the rose, in its varieties, is thrifty and vigorous, to an astonishing degree. We want rain for a full Autumn bloom; and a little *nitrogenous* manure—something that *smells pretty strong!*—worked in around them with the first good rains, would help the flowers, but is not needed for the growth.

"By the way—In preparing for hedge-rows, whenever soil is turned up in which it is known cotton would rust or die out, a tolerable good dressing of cotton-seed, or equally good manure, should be applied before planting."

For the Farmer and Planter.

TEA.

By a growing common consent, the article of Tea has become of prime necessity among all civilized people, either as a luxury or as food. We have been surprised that it should have so long been confined in its production to the country of its origin. Almost every other plant, useful or ornamental, has been cultivated in lands far from the original *foci* of its creation. We acknowledge the soundness of the principle, that claims it a duty of every Government to produce within its own limits every necessity, and even luxury, of life; at the same time, it may not be at all times good policy to do so. There is no doubt, we have paid millions to China for this article, without any production of this country acting as a balancing or compensating principle. Thus far, the policy of importing and consuming Tea, has been against us; and, if we would use it, we should, long ere this, have introduced its culture into our country, as we certainly have portions that are climatically suited to its production. The physical condition and habits of our people may not be in harmony with the feminine manipulation of the leaves, as practiced by the weaker-race Chinese.—Yet, we are certain the superior genius and industrial energies of our race would soon invent a fast manipulation, that would insure remunerating production, and make us as independent of China or India for Tea, as we are now for Cotton. We have no doubt, millions of acres of land, geologically and climatically suited to the growth of the Tea shrub, are within the limits of the United States, and that Tea can be produced, sufficient for the consumption of the whole Union; and, even with the ports of China open to our commerce, it may be sound policy to commence its cultivation as a branch of our agricultural pursuits. We will proceed to lay before the readers of the *Farmer and Planter* our knowledge and speculations on the Tea shrub, and its production.

The Teas of commerce are produced, green and black, from the same plant, called "*Thea bohea*," in the south of China, and "*Thea viridis*," in the north—coloring matter making the difference.—*Thea*, in Botany, is the name of the Tea shrub. The

name is of barbarous derivation, originating in the Chinese "Tcha," or the Japanese "Tsja." Kämpfer from these formed the Latin name, *Thea*. LINNÆUS admitted Kämpfer's name, for the sake of its Greek orthography, meaning a goddess. The name, we think, should be most welcome to every lover of that exhilarating beverage, a good cup of pure tea, without the coloring of Prussian blue and plaster of Paris.

NATURAL ORDER, *Columnifera*, of LINNÆUS.

" " *Aurantiis et meliis affini*, of TUSSIEN.

CLASS Polyandria; Order Monogynia, of LINNÆUS.

" *Monodelphia*; Order Polyandria, of modern authours.

Generic character. Calyx—Perianth inferior, small, of one leaf, in five deep, rounded, obtuse, segments; permanent.

Corolla—Of one petal, tube none; limb in six or more deep, unequal, rounded, concave, imbricated segments, much longer than the calyx; the outer ones smallest.

Stamens—Filaments numerous, about two hundred, thread-shaped, shorter than the Corolla; united at the base into a shallow, cup-like-tube inserted into the receptacle, and connected with the bottom of the petal; anthers peltate, simple, nearly globose.

Pistillum—Germen superior, globose, with three obtuse angles; style triangular, with three furrows, the length of the stamens, splitting into three parts; stigmas three, linear-oblong, deflexed.

Pericarp—Capsule three-lobed, three-celled, bursting along the upper side of each lobe; seeds solitary, globose, somewhat angular.

Essential Character. Calyx in five deep, rounded segments; corolla in six or more deep, imbricated segments; capsule, superior, three-lobed; seeds solitary.

Should all the readers of the *Farmer and Planter* get so far through our notice of the Tea-tree, we have no doubt nine out of ten will pitch right into CHINQUAPIN-RIDGE, and slash at him, right and left, as a dealer in "jaw-breakers" and "book-larnin'," "corollas and pericarps." Well, it is a fact, we might have written "blossoms and nuts." But stop, my good fellows; you forget how many of your daughters are at boarding-schools studying Botany under a high-pressure movement, that leaves blossoms and nuts half a century behind time. Now, we can stand the onslaught of the old-uns and never cry "hold, enough." But the girls—we couldnt stand it, no how; so, here we go, at it again, at the risk of all the names you may, in charity, call us.

We have in our garden a Tea-tree, raised from seeds upwards of ten years ago. The stem is now about four feet high, very bushy, with numerous alternate round, leafy branches; smooth, except at

the extremities, where the youngest shoots are finely silky, with close-pressed hairs. This shrub has grown but little in the last four or five years. The leaves are alternate, on short, thick-channelled, smooth foot-stalks; evergreen, elliptic-oblong, with a blunt emarginate point, copiously serrated, except at the base, with inflexed, pointed serratures, smooth on both sides, with one rib, and many transverse veins, interbranching towards the margin; paler beneath, two or three inches long, and about one inch broad—the young ones finely silky before expansion, with a deciduous point; stipular none; flowers axillary, or on the lateral shoots, nearly terminal, white, not unlike some myrtles, only larger, and on short, thick, recurved, round, smooth stalks, most commonly two together, accompanied by a few alternate, short, ovate, deciduous bracteas. The two outer segments of the corolla smaller than the rest, green or purplish at the back; anthers and stigmas are yellow. Flowers in October and November, bearing the Winters of Abbeville District without any protection. The fruit was not all killed in January, 1857, when the thermometer was three degrees below zero, on the morning of the 19th.—We are disposed to think that ten or fifteen years is as long as they will live, in a flourishing state.—They bear not many seed; not more than one hundred in any one year. The seeds should be planted in nursery-beds, and transplanted in February, in rows four feet by three. The third year the crop may be gathered.

Were we disposed to go into the tea-culture, we should depend on the plants at three years old, having them in three fields, planting one and reaping one every year. We expect to experiment a little on the preparation of the leaves, which we think will require no great skill. We are satisfied the fragrant smell of the different kinds of Teas is dependent on the addition of the flowers of the fragrant Olive.—This is a small evergreen tree, that blossoms in Winter and early Spring—but matures no seed in our climate—equally hardy with the Tea, and with us they grow side by side.

We are satisfied our climate is as well adapted to the raising of Tea as any other country. But it will take time to raise seed sufficient for an experiment of any amount. CHINQUAPIN-RIDGE.

March 4th, 1859.

THE TANSY, AND ITS VALUE.—M. De Moragues announces that this plant (dried) is excellent sheep food, and that, when fresh, it makes capital litter for domestic animals. Its peculiar balsamic odor most effectually drives away fleas. A lapdog sleeping on a bed of fresh tansy, is immediately freed from these vermin. It should be renewed when the leaves are quite dry. This seems a better application of the plant than following the example of our grandmothers, and making it into cakes.

PROPAGATION BY CUTTINGS.

This is one of the most common and available modes of extending plants. A cutting is simply a part of a plant taken off and placed in a position to form roots, and become in all respects a living representation of the original from whence it was taken. The constitutional conditions, or special proportionate arrangements of the constituents of plants most favorable for the emission of roots, has not been determined. While, therefore, some will throw out roots under any conditions, others will do so very tardily under the most favorable circumstances.

Cuttings taken from extreme points of shoots will produce early flowering plants, and frequently a tendency to bushy and dwarf growth; those from side branches, incline to horizontal growth, and in some cases it is only by securing an upright shoot from the base of such side-growing plants that upward growth is obtained. These peculiarities are not constant, and are not considered important, although occasionally useful for particular purposes.

The formation of roots is dependent upon the previous or immediate action of leaves; the best shoots, therefore, for propagation, are those possessing a considerable portion of the organized matter consequent upon maturity, but in which the processes of growth are still in full operation; in other words, those shoots that have commenced to mature, but are possessed of healthy, active foliage.

Cuttings of young and succulent shoots, are immediately dependent upon the simultaneous growth of the stem for their successful rooting; the leaves must, therefore, be preserved, in order to assimilate matter for root formation.

It is necessary to surround the cuttings by an atmosphere containing a uniform degree of moisture. All moist bodies, when placed in a dry atmosphere, lose moisture by evaporation. If the cuttings are subjected to aridity, their contained sap will speedily be exhausted, and they will shrivel and die. Hence the practice of propagation in close-fitting frames, or covering with a bell-glass, to insure the required atmospherical temperature and contained moisture.

Light in excess is equally injurious; shading is requisite from strong sunlight; care is required, however, that enough light be admitted to maintain a healthy leaf action.

Every one who has experience in this mode of propagation, is aware that, under certain conditions, cuttings will grow and increase at top without forming roots; while, under others, the same kind of cuttings will produce roots without indicating the slightest symptoms of growth by external buds.—Heat is the great stimulus to the vital forces of plants, and when the atmosphere in which they are placed is of a higher temperature than the soil in which they are inserted, the branches are excited to growth. On the contrary, these conditions are reversed when the soil is a few degrees warmer than the air; roots are then encouraged, while the stem may remain stationary. In propagating cuttings, it is, therefore, a good general rule, to place them in the lowest average atmospherical temperature that they will endure, to retard upward growth, and, on the other hand, to raise, by the application of artificial heat, the soil to the highest average temperature, in order to stimulate into activity the processes carried on in the vessels beneath the surface of the soil; and the more completely these conditions are secured, the greater the chances of success.

THE YOPON, OR SOUTHERN TEA-PLANT.

CLASS, 4. | Natural order, 95. | *Ilex Vomitoria*.
ORDER, 3. | *D. Ilicineae*. | *Yopon, S. S. Tea*.

Medical properties, tonic, astringent.

Forms a good beverage for the sick, particularly in fevers.

This hardy evergreen shrub is found coastwise on the Atlantic slope, from Albemarle Sound, North Carolina, to the Rio Grande, in Texas, and perhaps as far north as the Gulf of California, on the Pacific slope. It delights mostly in the poor, dry, sandy points and head-lands, among rocks and dreary glade-lands, and frequently on small creeks and rivulets. In the formation of that most unholy compound called chaparral, and which, to the muleteer and herdsman of Mexico and Western Texas, is so much in the way, so annoying, and so destructive to sacks, blankets, clothing, &c., the Yopon contributes at least a full proportion of scraggy hooks and irresistible snags.

The leaves of the Yopon, when collected in August or September, carefully dried in the shade, and put up in air-tight canisters, are, when made into tea of proper strength for table use, not inferior to the tea we find in market. Some people like it better, and certainly it exerts a less deleterious influence on the vital forces.

In the form of tea, it is a pleasant diaphoretic in sickness, and is peculiarly applicable to fever of all grades. In cases of fever attended with a dry skin and restlessness, it frequently acts kindly as a soothing diaphoretic. In many cases of slight bilious disturbances, it is sufficient to put the patient in bed, with a hot rock wrapped in a damp cloth to his feet, with blankets or quilts over him sufficient to keep him comfortable, and let him drink freely of the Yopon tea, till he sweats the fever off.

In Florida, New Orleans, Mobile, and many other points along the Southern coast, it has been long known and esteemed by the Indians and poor people as the best remedy for yellow fever—hence its specific name, *Vomitoria*—relying upon it solely in the most aggravated cases, and many of them recovering. The unavoidable conclusion is, that if the Yopon did not cure those cases, there was no use for doctors; for they applied nothing else.—*Texas Telegraph*.

CRESS.—The curled-leaved variety is the best: it has a mild, delicate flavor, and affords a pleasant addition to our stock of small herbs; it is used as a small salad like mustard, and is employed as a beautiful garnish. It is used with lettuce, and is relished by most appetites.

It should be cultivated so as to grow as rapidly as possible, being cut while perfectly young, and in a crisp state. It is raised by sowing the seed, as wanted for use, at different seasons of the year; where a constant succession is required, and to have the crops delicately young, once a week or fortnight will not be found too often. Prepare a piece of rich, well-dug ground, by raking the surface very fine; sow the seed in small, flat, shallow drills, or very thickly broadcast; earth over very lightly, and just enough to cover the seed. In warm, dry weather, give occasional waterings; and when the ground is well prepared, it may be grown with little trouble.

The Water-Cress is a different plant, and may be grown in any shallow water.—*Southern Agriculturist*.

ITEMS FROM THE HORTICULTURIST.

Keeping bouquets is an important consideration.—Let two clusters of fresh-gathered flowers be introduced into a sitting-room; place the one in the mouth of a narrow-necked jar of water, and arrange the other over a shallow dish of water, it will be found that the latter will be perfectly fresh, days after the former are faded. If a larger dish, with water in it, is placed below, and a bell glass set in the water, so that no external air can enter, the flowers may remain perfect, say eamelias, etc., for *whole weeks*, because they are surrounded by air incessantly moistened by vapor from the plates.

If you want to be successful in transplanting, don't be afraid of working in dull weather. If you are shy of a "Scotch mist," buy an India-rubber mackintosh. Nothing is so cruel to many sorts of trees, as to let their tender fibres parch up in a dry wind, or a bright sun. Such weather may be fun to you, but 'tis death to them.

Some of the old gardeners have an idea that old cucumber and melon seeds produce plants more fruitful than those from new seeds. The most luxuriant plant is produced from the good, sound and plump new seed.

STIRRING THE SOIL.—As soon as crops appear above ground, the soil should be carefully stirred around them. This is one of the advantages derived from drill culture, and a very important one it is during dry seasons. The deeper the ground is loosened, the better will it support vegetation; the loose ground on the surface acts as a mulching, and prevents the rapid evaporation of the moisture from below. The air is also allowed unimpeded access to the roots, facilitating those electro-chemical changes upon which the growth of plants so much depends. Heavy Summer showers more or less consolidate the surface of all soils; surface stirring should, therefore, follow immediately after rains, and never allow weeds to gain sufficient headway to suggest the use of the hoe, but let the cleanliness and freedom from weeds be a consequence of repeated surface cultivation.

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TOMATOES.

The greatest difficulty generally experienced in raising good tomatoes, is their being killed by the frost before they get fully ripe. To obviate this, they should be started in hot-beds, as early as the first of April. If a hot-bed is not convenient, they can be started in the house, in boxes, set in the kitchen window, or elsewhere; but care should be taken that they are exposed to the sun, and outdoor air, as much as possible, especially a few days before transplanting.

When the weather will admit of their being transplanted, they should be taken up with as *much dirt on the roots as possible*, and set out four and a half or five feet apart, each way. Holes should be made large enough to admit the roots, with dirt attached, and if filled with water, the plants will not be as apt to wilt. After being set in the holes, and the dirt pressed well around, they should be well hilled up. If planted in rich soil, the fruit will be finer, but will not ripen as early as when planted on poorer. After the vines have attained nearly their full size, if the ground is rich, they will generally need to be propped up in some way or other, to prevent their lopping over into the dirt.—*Rural American.*

PRUNING AND GRAFTING TREES.

MESSRS. EDITORS:—Pruning and grafting trees has been a part of my employment for the last twenty years, which has given me an opportunity to judge of the best time to do the same; and as there are different opinions on the subject, I shall, in a few words, give my views on it.

First, I would say, I agree with C. W. Maeomber, as regards time. Trees should never be pruned in the Fall, for the reason that the stock dries up, the bark curls from the stock, lets in the water, and injures the tree, and it never heals so well as when removed at the proper time. To prune in early Spring is better, but not the best time. Limbs removed at this season of the year, when the sap first begins to start, also injures the tree, for the sap rushes with great power to every part of the tree, which will cause the wound to bleed. The tree, or limb, will turn black, and often the tree will die. I am satisfied that the best time to prune apple-trees is from the last of June to the last of July. At this season of the year, that strong flow of sap begins to subside, and the tree is covered with foliage, which is a great help to the wound, in preventing its drying and cracking. Let the readers of the *Cultivator* satisfy themselves by experiments the coming Summer, and see how soon the bark will turn over the edge of the wound.

Early grafting is best—from the last of March to the last of April. Scions should always be cut before the sap starts.—A. SWETT, in *Boston Cultivator*.

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THE ROSE-BUG AND THE TOAD.—Several persons who have lately written in regard to this insect, (*Melolontha subspinosa*) speak of its not being eaten by birds, or by domestic fowls. We have not observed that any writer has spoken of its being devoured by the *toad*, though this animal is in fact its destroyer, to a great extent. In seasons when the rose-bug is numerous, we have frequently seen toads eat them, and have noticed that where the bugs are congregated in large numbers, the excrements of toads appear to consist chiefly of the wing-covers and hard portions of the insects. The toad is almost an indiscriminate devourer of insects. We scarcely know a worm, bug, or fly, that it will not swallow with greediness, except the black or stinking pumpkin-bug (*Coreus tristis*). We judge that it is not very fond of these, as they are often seen in abundance within reach of toads. We once succeeded in causing an imprisoned toad to swallow one of these bugs, full-grown; but the morsel seemed too *spicy* for the animal's palate, and he refused the offer of a second taste.

FLOWERS IN WINDOWS.—There are fewer tests of a happy home within, than the flower-decorated window and neatly-kept garden; and there is no occupation for the leisure hours more calculated to keep it so, or to soothe the mind. It yields pleasure without surfeit; the more we advance, the more eager we become. And how unlike this to most of our worldly engagements! To those blest with children, how delightful it is to bend their young minds to a pursuit so full of utility and intellectual instruction, combined with the advantages usually accompanying industry; and in children, carefulness and thought about their plants will lead to the same feelings respecting other matters.—*Correspondent of the Builder.*

Domestic Economy, Recipes, &c.

SIMPLE CURE FOR CROUP.—We find in the *Journal of Health*, the following simple remedy for this dangerous disease. Those who have passed nights of great agony, at the bedside of loved children, will treasure it up as an invaluable piece of information. If a child is taken with croup, instantly apply cold water, ice water if possible, suddenly and freely to the neck and chest with a sponge. The breathing will almost instantly be relieved. As soon as possible, let the sufferer drink as much as it can; then wipe it dry, cover it up warm, and soon a quiet slumber will relieve the parent's anxiety, and lead the heart in thankfulness to the Power which has given to the pure gushing fountain such medicinal qualities.

TO IMPROVE CIDER.—Let the new cider from sour apples (sound and selected fruit is to be preferred,) ferment from one week to three weeks, as the weather is warm or cool. When it has attained to lively fermentation, add to each gallon, according to its acidity, from half a pound to two pounds of white crushed sugar, and let the whole ferment until it possesses precisely the taste which it is desired should be permanent.

In this condition pour out a quart of the cider, and add for each gallon, one quarter of an ounce of sulphate of lime, known as an article of manufacture under the name of *anti-chloride of lime*. Stir the powder and cider until intimately mixed, and return the emulsion to the fermenting liquid. Agitate briskly and thoroughly for a few moments, and then let the cider settle. The fermentation will cease at once.

When, after a few days, the cider has become clear, draw off and bottle carefully, or remove the sediment and return to the original vessel. If loosely corked, or kept in a barrel on draft, it will retain its taste as a still cider. If preserved in bottles carefully corked, which is better, it will become a sparkling cider, and may be kept indefinitely long.

DESTRUCTION OF RATS.—Before storing crops, destroy the rats about your premises. The following recipes may be recommended:

1. A correspondent of the *Mark Lane Express* suggests the following plan for the destruction of these vermin: Feed them with flour and a few sweet almonds, bruised, and mixed with a small quantity of molasses to form a paste, together with a few drops of aniseed, for five or six nights, until they take it freely, never laying more of the mixture than they will eat up clean; then add a teaspoonful of carbonate of barytes to about a pound of the paste. By using the above composition, the correspondent of the *Mark Lane Express* says that he has kept his premises clear of rats, at a small expense a year.

2. Place fresh fish in the place of their resort for several nights in succession; and when you find they consume them freely, sprinkle arsenic over the fish. Rats are passionately fond of fresh fish, readily eating them, while the poison will speedily give them their quietus.

A HARD AND DURABLE SOAP.—A patent has been granted in England for an improvement in the manufacture of soap, by the addition of sulphate of lime to the usual ingredients employed in its manufacture. The sulphate may be added with any of the usual ingredients employed in the manufacture of soap. The proportions of the sulphate which it is best to employ, vary according to the article manipulated upon, and the quality of the soap to be produced. Thus, about twelve ounces of dry sulphate is sufficient for one ton of the best soap, whereas, in common or highly liquored soap, six or eight pounds may be used with advantage. Soap, made with the addition of sulphate of lime, becomes hardened, keeps dry, and is not liable to shrink while in water, its durability is increased, and it does not wear or waste away before its cleansing properties are brought into action.

THE HICCUP.—Some time ago I had occasion to call at a Highland shooting-lodge, and, on entering the kitchen, where two English sportsmen were sitting, I happened to be attacked by a fit of hiccups. One of the sportsmen took a piece of gray paper from his pocket, and, after lighting and blowing it out, he started up, and held the fumes of it opposite my mouth and nostrils. I started, to be sure, but was quite astonished to find myself immediately cured; and I have since seen it frequently tried on others, and always proving a 'never-failing remedy.'

CARAGEEN BLANC-MANGE.—Pick over one cup of the moss, wash it in cold water, in which a little soda has been dissolved. When the brackish taste is gone, pour on half a pint of boiling water, and set it over a slow fire. Put one quart of milk into a tin pail and set it into a kettle of water to boil.—When the moss is pretty well softened, stir it into the milk; boil until the milk is thickened; then sweeten and strain it through a cloth into moulds. Flavor with extract of cinnamon, nectarine, or others, if preferred.

For flavoring, I have found nothing superior to Burnett's Extracts.

A HOUSEKEEPER.

DESTRUCTION TO HOUSE BUGS.—The French Academy of Sciences is assured, by Baron Thenard, that boiling soap and water, consisting of two parts of common soap, and one hundred parts of water by weight, infallibly destroys bugs and their eggs. It is enough to wash walls, woodwork, &c., with the boiling solution, to be entirely relieved from this horrid pest.

TO MAKE CREAM FRITTERS.—Mix a pint and a half of wheat flour with a pint of milk; beat six eggs to a froth, and stir them into the flour; grate in half a nutmeg, and add a pint of sweet cream and two teaspoonsful of salt. Stir just long enough to mix the cream well in, and then fry the batter in small eakes.

DROP BISCUIT.—One quart of sifted flour, one teaspoonful of salt, one beaten egg, one small teaspoonful of soda, dissolved in a little hot water, one cupful of cream, two cupsful of sour milk, or buttermilk, and a spoonful or two of white sugar. Stir thoroughly to a thick batter. Drop with a spoon on buttered tins. Bake in a quick oven.